

Receiving Report

Date: 14/4/11
 Supplier: BK

Batch No: M/28818
 Dart P/O: 2374

Packing Slip: Yes ☒ No ☒
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☒
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☒ No ☒ N/A ☐
 Waybill Attached: Yes ☐ No ☒
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC18 Inspection ☐ N/A ☒
 Work Order ☐ N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

Production/Admin:

Date _____
 Received/Costing _____
 Initial _____

Location _____



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO23714**

Purchase Order Date 4/9/2014
PO Print Date 4/10/2014

Page Number 1 of 6

Order From :

VU-BEA001

Ship To : DART AEROSPACE LTD

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx PI collect

Ship Acct:

Buyer

Michael Gregoire

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

M128818

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	212-12 <i>396</i>	Receptacles	4/16/2014 Yes 4/16/2014	FN	175.00 Each ✓	\$2.50	\$437.50
Line Total:							\$437.50
2	2600-LW <i>396</i>	Camlock Retaining Washer	4/16/2014 Yes 4/16/2014	FN	175.00 Each ✓	\$0.20	\$35.00
Line Total:							\$35.00
3	AN310-4 <i>392</i>	Nut	4/16/2014 Yes 4/16/2014	FN	75.00 Each ✓	\$0.65	\$48.75

Note:

4/10/2014



Dart Aerospace Ltd.
1270 Aberdeen Street
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PURCHASE ORDER

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Purchase Order Date 4/9/2014

PO Print Date 4/10/2014

Page Number 3 of 6

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USA

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CANADA

M/28818

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FCA - (Free Carrier)

Ship To Contact

Ship To Phone

Ship Via:

FedEx PI collect

Ship Acct:

7	AN4C20A	Bolt	4/16/2014	50.00	✓	\$1.20	\$60.00
			Yes	Each			
			4/16/2014				

358

Line Total: \$60.00

8	CCR264SS3-3	Cherry Rivet	4/16/2014 FN	200.00	✓	\$0.15	\$30.00
			Yes	Each			
			4/16/2014				

327

Line Total: \$30.00

9	CR3213-4-05	RIVET	4/16/2014 FN	200.00	✓	\$0.35	\$70.00
			Yes	Each			
			4/16/2014				

329

Line Total: \$70.00

10	MS20365-428	Nut	4/16/2014 FN	100.00		\$0.15	\$15.00
			Yes	Each			
			4/16/2014				

333

Alt#MS21444N4

Note:

4/10/2014



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Page Number 2 of 6

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Ship To : DART AEROSPACE LTD

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USA

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FedEx PI collect

Ship Acct:

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Michael Gregoire

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FOB

FCA - (Free Carrier)

M 12-8/18

Line Total: \$48.75

4	AN310C3	NUT	4/16/2014	25.00	✓	\$0.85	\$21.25
			Yes	Each			
			4/16/2014				

372

Line Total: \$21.25

5	AN4-42A	Bolt	4/16/2014	100.00	✓	\$1.15	\$115.00
			Yes	Each			
			4/16/2014				

359

Line Total: \$115.00

6	AN4C13A	BOLT	4/16/2014	200.00	✓	\$0.75	\$150.00
			Yes	Each			
			4/16/2014				

613

Line Total: \$150.00

Note:

4/10/2014



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Purchase Order Date 4/9/2014

PO Print Date 4/10/2014

Page Number 4 of 6

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FedEx PI collect

Ship Acct:

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Net 30

Currency

USD

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FCA - (Free Carrier)

4/12/2014

						Line Total:	\$15.00
11	MS20615-4M18	Rivet	4/16/2014 Yes 4/16/2014	125.00 Each	✓	\$0.45	\$56.25
						Line Total:	\$56.25
12	MS21043-4 ✓ <i>ST509</i>	Nut	4/16/2014 FN Yes 4/16/2014	1,500.00 Each	✓	\$0.55	\$825.00
						Line Total:	\$825.00
13	MS21069L3	ANCHOR NUT	4/16/2014 FN Yes 4/16/2014	200.00 Each	✓	\$0.35	\$70.00
						Line Total:	\$70.00

Note:

4/10/2014



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1270 Aberdeen Street
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PURCHASE ORDER

Purchase Order ID PO23714

Purchase Order Date 4/9/2014

PO Print Date 4/10/2014

Page Number 5 of 6

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88289 EXPEDITE WAY
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Ship To Phone

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Ship Acct:

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Customer Tax #

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Currency

USD

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FCA - (Free Carrier)

14 MS24693-C48 SCREW 4/16/2014 250.00 ✓ \$0.05 \$12.50
300 Yes Each
4/16/2014

Line Total: \$12.50

15 NAS1149D0663J Washer 4/16/2014 FN 1,000.00 ✓ \$0.04 \$40.00
5104 Yes Each
4/16/2014

Line Total: \$40.00

16 71401-45 4/16/2014 0.00 \$0.00 \$0.00
No

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT

A033 STATEMENT OF CONFORMITY/TEST RECORDS

FOR NAS, AN and MS FASTENERS

A040 NOTIFICATION OF QUALITY ESCAPE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENTS

Note:

4/10/2014



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10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Total: \$0.00

PO Total: \$1,986.25

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 2

Change Date: 4/10/2014



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
1	175	EA	212-12		1584197	ALCOA TORRANCE/CAMLO	71286		


Jason Lewis
Vice President of Quality

04/10/14

Alcoa Fastening Systems



Shipper ID: 864279

Page: 1

Sold To: 5574
B/E AEROSPACE, INC.
ATTN: ACCOUNTS PAYABLE
P.O. BOX 025263
MIAMI, FL 33102-5263
USA

Ship To: 55740014
B/E AEROSPACE CONSUMABLES
9835 NW 14TH ST
MIAMI, FL 33172
USA

Shipped From:
AFS -TORRANCE
AEROSPACE PRODUCTS
TORRANCE OPERATIONS
3000 WEST LOMITA BLVD.
TORRANCE, CA 90505
TEL: 310-530-2220
USA

Ship Date: 11/30/13
Print Date: 11/30/13
Time: 07:43:06

Ship Via: FED EX
INCO Terms: FCA AFS TORRANCE

Container/Weight:
Carrier Shipment Ref: 864279
Bill Lading #:

SHIP VIA : FED EX

BUYER: EDWARD PANETTA

PHONE:

MATERIAL COMPLIES WITH DFARS 252.225-7009 PREFERENCE FOR DOMESTIC SPECIALTY
METALS" WITH ITS ALTERNATE 1

***SHIP VIA FEDX GRD COLLECT ACCT# 0911-0149-01 IF 150 LBS OR MORE SHIP FED
EX FREIGHT ECONOMY COLLECT ACCT# 018757 ***

DO NOT SHIP BY ANY OTHER WITHOUT PROPER WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.

** BAR CODE PER QAP 33 CLAUSE P REQUIRED **

** QAP 33.0 REV H CLAUSES: A,B,C,E,H,P,U,V. CLAUSE A,B GENERAL TERMS

APPLIES.

REV: B

RELEASE NUMBER: 9G2DOPEM11

Sales Order: F466665 Order Date: 05/14/13 Purchase Order: 0PEM11

Remarks: ADILENE

Ln	Item Number	Description	Rev	Qty Shipped	Qty B/O UM
1	BACR11AW2	RECEPTACLE (212-12)		25000.0	0.0 EA
	TSO C148				
	Cust Line #:	1			
	Customer Item:	BACR11AW2			
	Required Date:	01/13/14	Promised Date:	01/20/14	
	MFG C OF C CHEM & PHYS TEST REPORT REQ				
	PLEASE DUAL CERT PART NUMBER BACR11AW2 TO PART NUMBERS: HS4430-1,				
	NSA55134-302, BACR11Y2				
	Loc/Lot:	S5DD17	1584198	10,010.00	COO: CN

ALCOA GLOBAL FASTENERS, INC.

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY (IN AMOUNT, QUANTITY, ETC.), BETWEEN THE GOODS ACTUALLY SHIPPED AND / OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NO LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON.

CUSTOMER'S COPY

**Alcoa
Fastening
Systems**



Shipper ID: 864279

Page: 2

Sold To: 5574
B/E AEROSPACE, INC.
ATTN: ACCOUNTS PAYABLE
P.O. BOX 025263
MIAMI, FL 33102-5263
USA

Ship To: 55740014
B/E AEROSPACE CONSUMABLES
9835 NW 14TH ST
MIAMI, FL 33172
USA

Shipped From:
AFS -TORRANCE
AEROSPACE PRODUCTS
TORRANCE OPERATIONS
3000 WEST LOMITA BLVD.
TORRANCE, CA 90505
TEL: 310-530-2220
USA

Ship Date: 11/30/13
Print Date: 11/30/13
Time: 07:43:06

Ship Via: FED EX
INCO Terms: FCA AFS TORRANCE

Container/Weight:
Carrier Shipment Ref: 864279
Bill Lading #:

Ln Item Number Lot/Serial

1 BACR11AW2

Loc/Lot:

S5FLR

1584197

Loc/Lot:

S5101C

1624803

HTS CODE: 7415290000

SCHEDULE-B NUMBER: 7415290000

ECCN: 9A991

The export classification appears above. You are responsible for all
related export license requirements.

***** Total Qty Shipped:

25,000

ALCOA GLOBAL FASTENERS, INC.

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CUSTOMER'S COPY

Alcoa Fastening Systems



Shipper ID: 864279

Page: 1

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ATTN: ACCOUNTS PAYABLE
P.O. BOX 025263
MIAMI, FL 33102-5263
USA

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B/E AEROSPACE CONSUMABLES
9835 NW 14TH ST
MIAMI, FL 33172
USA

Shipped From:
AFS -TORRANCE
AEROSPACE PRODUCTS
TORRANCE OPERATIONS
3000 WEST LOMITA BLVD.
TORRANCE, CA 90505
TEL: 310-530-2220
USA

Ship Date: 11/30/13
Print Date: 11/30/13
Time: 07:43:07

Ship Via: FED EX
INCO Terms: FCA AFS TORRANCE

Container/Weight:
Carrier Shipment Ref: 864279
Bill Lading #:

SHIP VIA : FED EX

BUYER: EDWARD PANETTA

PHONE:

MATERIAL COMPLIES WITH DFARS 252.225-7009 PREFERENCE FOR DOMESTIC SPECIALTY METALS" WITH ITS ALTERNATE 1.

***SHIP VIA FEDX GRD COLLECT ACCT# 0331-014970 IF 150 LBS OR MORE SHIP FED

EX FREIGHT ECONOMY COLLECT ACCT# 018757 ***

DO NOT SHIP BY ANY OTHER WITHOUT PROPER WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.

** BAR CODE PER QAP 33 CLAUSE P REQUIRED **

** QAP 33.0 REV H CLAUSES: A,B,C,E,H,P,U,V. CLAUSE A.3 GENERAL TERMS

APPLIES.

REV: B

RELEASE NUMBER: 9G2DOPEM11

Sales Order: F466665 Order Date: 05/14/13 Purchase Order: 0PEM11

Remarks: ADILENE

Ln	Item Number	Description	Rev	Qty Shipped	Qty B/O UM
1	BACR11AW2	RECEPTACLE (212-12)		25000.0	0.0 EA
	TSO C148				
	Cust Line #: 1				
	Customer Item: BACR11AW2				
	Required Date: 01/13/14	Promised Date: 01/20/14			
	MPG C OF C CHEM-E-PHYS-TEST-REPORT-REQ				
	PLEASE DUAL CERT PART NUMBER BACR11AW2 TO PART NUMBERS: HS4430-1,				
	NSA55134-302, BACR11Y2				
	Loc/Lot: S5DD17	1584198		10,010.00	COO: CN

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted below were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

[Signature]
Director of Quality Assurance
Torrance Operations

ALCOA GLOBAL FASTENERS, INC.

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY (IN AMOUNT, QUANTITY, ETC.), BETWEEN THE GOODS ACTUALLY SHIPPED AND / OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NO LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON.

CUSTOMER'S COPY

**Alcoa
Fastening
Systems**



Shipper ID: 864279

Page: 2

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Print Date: 11/30/13
Time: 07:43:07

Ship Via: FED EX
INCO Terms: FCA AFS TORRANCE

Container/Weight:
Carrier Shipment Ref: 864279
Bill Lading #:

Ln Item Number Lot/Serial

1 BACR11AW2 *** Cont ***
Loc/Lot: S5FLR 1584197 9,912.00 COO: CN
Loc/Lot: S5101C 1624303 5,078.00 COO: CN
HTS CODE: 7415290000
SCHEDULE-B NUMBER: 7415290000 ECCN: 9A991

The export classification appears above. You are responsible for all related export license requirements.

***** Total Qty Shipped: 25,000 *****

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Director of Quality Assurance
Torrance Operations

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CUSTOMER'S COPY

Alcoa Fastening Systems
Torrance Operations

QUARTER TURN PRODUCT CERTIFICATION

The parts contained in this shipment have been manufactured and inspected in accordance with applicable drawings and specifications.

CUSTOMER NAME: B/E AEROSPACE

PURCHASE ORDER NO.: 0PEM11

DATE: 12/03/13

BOEING PART NUMBER: BACR11AW2

CAMLOC PART NO: 212-12

PART DESCRIPTION: RECEPTACLE

PROCUREMENT SPEC. NO: BPS-I-168 REV. B DATED 19 JAN 01

LOT SIZE: 10,250

LOT NO.: 1584197

QTY. SHIPPED: 9,912

SHIPPER NO.: 864279

COMPONENT:	MATERIAL PRODUCER:	MATERIAL TYPE:	HEAT #:
RECEPTACLE	Rapport Metallurgique	Silicon Bronze	Four 28

MECHANICAL PROPERTY RESULTS:

ACCEPT:

REJECT:

ACCEPTANCE DATA:

VISUAL AND DIMENSIONAL REQUIREMENTS:



IN-PROCESS WORK ORDER

HARDNESS AND TORQUE FOR STUDS

TEST DATA SHEET

MINIMUM STOP STRENGTH RECEPTACLES:



TEST DATA SHEET

DEVIATIONS:

FINAL SHIPPING AUTHORIZATION:

DATE:

INSP. STAMP:

Pin Perkins

12/3/13



QUALITY ASSURANCE

TWO COPIES WITH EACH SHIPMENT

FORM 082195-2

The test report shall not be reproduced except in full, without the written approval of the laboratory; and the recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

Alcoa
Fastening
Systems



Aerospace Products
Torrance Operations

3000 W Lomita Blvd
Torrance, CA 90505 USA
Tel: 1 310 784 2600

CERTIFICATE OF CONFORMANCE

CAMLOC CAGE CODE...71286

Customer :	<u>B/E AEROSPACE</u>
Part Number :	<u>212-12</u>
Customer P/N :	<u>HS4430-1 / NSA55134-302 / BACR11Y2</u>
P.O. Number :	<u>0PEM11</u>
Lot Number :	<u>1584197</u>
Quantity :	<u>9,912</u>

This certifies that the above part number was tested in accordance with the quality conformance test proposal for Quarter Turn Panel Fasteners agreed upon by Boeing Corporation and Camloc Products. A sample from the lot was selected at random per MIL-STD-105, Inspection Level S-2, with an AQL of 1.0 percent. The test results for locking torque and unlocking torque are in conformance with Camloc Products design specifications. Tests for stud hardness are in conformance with paragraph 3.5.11 of MIL-F-5591 for alloy steel. Hardness for stud materials other than alloy steels are in conformance with table II of MIL-F-5591, which are in conformance with Camloc Products design specification. Tests for stud materials other than ally steel are in conformance with Camloc Products design specifications. These reports are on file and available for review.


Quality Assurance

The test report shall not be reproduced except in full, without the written approval of the laboratory; and the recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

Alcoa Global Fasteners, Inc.

ATS • Camloc • Delron • Eagle • Eurosim • Huck • Kaynar • K-FAST • Mairoll • Mecaero • Microdot • RAM • Rosan • Screw-Corp • Simmonds • SNEP • Technico • Tridair • Voi-Shan



LE LAITON INJECTÉ

FAVI S.A.

S.A. au CAPITAL de 960 000 €

14 rue Louis Doreux
80480 HALLENCOURT FRANCE
Tél. : 03 22 20 20 50
Fax : 03 22 28 60 63
Tél. International : 33 3 22 28 20 50 / Fax : 33 3 22 28 60 63
e-mail : favi@favi.com
http://www.favi.com

RCS d'AMIENS 778151583

DQ 7342

Désignation :	Réceptacle mv 212-12	N°:	18 217	Client/Customer/Kunde
Part/beschreibung n° :	MV 212-12/A	Indice:	4	SAARMETALL
Lot de /batch of/Menge :	Four 28	N° lancement:	12040972 (semaine 35)	
Alliage/Alloy/Legierung :	CU ZN 16 SI 4 - C / (CU ZN 12 SI 4) / ASTM B176			

COMPOSITION CHIMIQUE / Chemical analysis/Chemische Analyse :

Analyses type %

Standard analysis/Standard Analyse

	Maxi	Mini
CU	83,00	78,00
Pb	0,80	/
Sn	0,30	/
Fe	0,60	/
NI	1,00	/
Al	0,10	/
Mn	0,20	/
SI	5,00	3,00
Zn	Solde	Solde

Analyses sur bain %

Melt analysis/Schmelzofenanalyse

CU	81,10
Pb	0,090
Sn	0,090
Fe	0,080
NI	0,090
Al	0,010
Mn	0,000
SI	3,89
Zn	Solde

Observations /Remarks/Bemerkungen :

250 000 pièces envoyées le 17/09/2012.

RESPONSABLE QUALITE		RESPONSABLE METALLURGIE	
Date :	17 septembre 2012	Date :	17 septembre 2012
Visa :	J. BESSA	Visa :	Y. HAUTBOU
Diffusion Interne	Commercial	Qualité	B.E. Fonderie

SIRET: 778 151 583 0001

APE 24642

RC S.A. 778 151 583

Receptacle 1584197

JAN 15 2013

**Alcoa
Fastening
Systems**



3000 W Lomita Blvd
Torrance, California 90505 USA
Tel: 1 310 530 2220
Fax: 1 310 784 4320

Processing Certification

377816

Date

04/26/2013

Lot Number

1584197

Lot Quantity

10250

Part Number

BACR11AW2

Type of Process

**CADMIUM PLATE
TYPE II, CLASS 2**

I.B.M. Number

412390

Specification

AMS-QQ-P-416C

Material Type

S.BRONZE

Mony Barkol

Director of Quality Assurance



APR 26 2013

Lab Tech Stamp / Date



Accepted 1584197

Date Created: Tuesday, 03 December, 2013 01:29:11 PM

QC-195A



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
10	100	EA	MS21044N4	MS20365-428	07	GREER STOP NUT / SPS 27687			


Jason Lewis
Vice President of Quality

04/10/14

SPS 481 McNALLY DRIVE • NASHVILLE, TN 37211
TECHNOLOGIES

Any alteration or misuse of this certificate, or any unauthorized rework or modification of the identified products voids all manufacturer's warranties, and may lead to civil damages and/or criminal penalties.

CUSTOMER NBR 01-0001-00021190-0004

HONEYWELL HFG
700 HENRIETTA CREEK ROAD
ROANOKE, TX 76262-6398

PACKING LIST & CERTIFICATION

SUBJECT TO U.S. EXPORT AND OTHER FOREIGN LAWS CONTROLLING THE EXPORT OF TECHNOLOGY, NO PARTY MAY REQUIRE RE-EXPORT OR RELEASE OF THESE PRODUCTS TO OTHER COUNTRIES OR PARTIES IN VIOLATION OF THE PROHIBITION ON THE PRIOR APPROVAL OF THE U.S. GOVERNMENT; DIVERSION OF THESE PRODUCTS FROM THE AUTHORIZED DESTINATION CONTRARY TO U.S. AND INTERNATIONAL REGULATIONS OF THE UNITED STATES IS PROHIBITED. THE PURCHASER AGREES TO COMPLY WITH APPLICABLE U.S. AND INTERNATIONAL REGULATIONS OF THE UNITED STATES, OTHER RELEVANT NATIONAL AND PERTINENT INTERNATIONAL ORGANIZATIONS PERTAINING TO EXPORT, RE-EXPORT, DEMISED EXPORT, RE-EXPORT, OR RELEASE OF THESE PRODUCTS IN VIOLATIONS OF THIS CLAUSE, AS DETERMINED SOLELY BY SPS TECHNOLOGIES AND/OR GREEN STOP NUT, INC., SHALL BE DEEMED A MATERIAL BREACH OF THIS AGREEMENT.

NO MATERIAL ACCEPTED FOR RETURN
WITHOUT OUR PERMISSION.

10. PUBLISHED 11/14/08

ORDER NBR

911149-002

ORDER DATE

07/05/07

PAGE

E/S # 911140002

HONEYWELL
PO BOX 981157
EL PASO, TX


79998

11/14/08

* SPS SOURCE INSPECTION REQUIRED *
* SPS AGENT USE ITAD FORM ON EACH
* NEW CLOTH SHIPPING LABEL REQUIRED *
* CHEMICAL & PHYSICAL CHANGES

DO NOT SHIP PRIOR TO 7 DAYS AHEAD OF

PRODUCT CODE = 000000 QTY ORDERED = 100000
IN DEPT LTR CHEESE COLLECT ACCT# 869711 CALIFORNIA
OVER 230W VIA YELLOW FREIGHT
LIVE! PAY ATTENTION! DEADLY ASSEMBLY IN COTTONWOOD
OVER 100K SHIP EMERY AIR COLLECT ACCT# 085-713-100
ATTENTION SHIPPING AGENTS! LIMIT ON ALL CARTONS

LOT NO.						07						CERTIFICATION OF CONFORMANCE All parts are shipped free of mercury contamination. All damages exceeding price are excluded.								QUALITY ASSURANCE 						DATE:					
QUANTITY						50000						(*GREEN NYLON INSERT is a registered trademark of GREER STOP NUT, INC.)																			
LOT TRACE NO.						OA3																									
FREIGHT RECORD						WEIGHT		BOXES		PREPD		COLL		CARRIER		TYPE		CODE		BILL OF LADING						FREIGHT CHARGE					
																				SEE 911140-0P3											



Greer Stop Nut, Inc.
481 McNally Drive
Nashville, TN 37211

Phone: 615-832-8375
Fax: 615-331-0065
E-mail: greer@spstech.com

CERTIFICATE OF CONFORMANCE

Date of Certification: November 14, 2008

Sold To: Honeywell - Hardware Product Group
Alliance Gateway 54
700 Henrietta Creek Road
Roanoke, TX 76262

Purchase Order No: 816149

Customer Part No: MS21044N4 Rev. H & NASM21044 Rev. NEW Item No: 002

Greer Part No: F42NE-0428 / 0501920 Nomenclature: Nut, Self-Locking, Hexagon, Regular Height, 250° F

Lot No/Serial No: 07 Qty. Manufactured: 63,508 Qty. Shipped: 50,000

Manufacturing Date: 11-14-08

Material: 1137 Material Specification: AMS 5024 G Material Supplier: Nelsen Steel Company

Mill Heat No. 998195 Greer Control No: GCJ514T

Material Marking: N/A

Nylon Conforms to ASTM D4066-94B, 96A, 99, 01A Group 1 Class 1

Procurement Specification: MIL-N-25027G Am 1 & E Am 5, MIL-DTL-25027H Am 1 & NASM25027 Thread Spec: MIL-S-8879 Rev C Am 1

Surface Finish: Cadmium & Yellow Chromate Surface Finish Specification: QQ-P-416F Type II Class 3 Am. 3

Axial Tensile Strength: 4,580 lbs. Testing Exceeded: 4,580 lbs. Specification: MS21044N4 Rev. H & NASM21044 Rev. NEW

Sample Size: 15

Locking Torque Specification: MIL-N-25027G Am. 1 & E Am. 5, MIL-DTL-25027H Am. 1 & NASM25027 Sample Size: 15

1st Cycle Max. Locking Requirement: 30.0 in. lbs.
15th Cycle Min. Breakaway Requirement: 3.5 in. lbs.

Tested Range of Samples:

1st Cycle Max. Locking: 8-10 in. lbs.

1st Cycle Min. Bkwy: 10-14 in. lbs.

7th Cycle Max. Locking: 6-11 in. lbs.

7th Cycle Min. Bkwy: 9-12 in. lbs.

15th Cycle Max. Locking: 5-12 in. lbs.

15th Cycle Min. Bkwy: 7-12 in. lbs.

Non-Destructive Testing: Magnetic Particle Inspection Specification: ASTM E-1444-01, MIL-STD-271F1

Acceptance Criteria: MIL-S-1222H Int. Am.3, MIL-N-25027G Am. 1 & E Am. 5, MIL-DTL-25027H Am. 1 & NASM25027 Sample Size: 32

Magnetic Particle Inspection is in accordance with GS-002 Rev. 7 Dated 11-7-90 EB VPAR # B4203-02

Hardness Requirement: N/A Specification: N/A Hardness Results: N/A Sample Size: N/A

Conforms Dimensionally: MS21044N4 Rev. H & NASM21044 Rev. NEW Sample Size: 32

The products identified on this certificate have been manufactured, tested and inspected in accordance with, and unless noted above, conforms in all respects to the applicable drawings, specifications and/or standards. Complete reports of physical and chemical tests are on file for on-site examination. If no specified customer quality level is required, goods conform to seller's quality level. Reproduction except in full is strictly prohibited without written approval of Greer Stop Nut. All damages exceeding price are excluded. Mercury free clause: We certify that no possibility exists for mercury contamination to occur during manufacture, assembly or testing of parts on this contract. This document relates only to the items tested. Parts were manufactured in the United States of America. Sample plans are carried out to current standard/specification revision.

Product is compliant to DFARS 252.225-7014 ALT 1.

G and Green Nylon are Trademarks of Greer Stop Nut, Inc.

Janet M Calvin
(es)

Janet M. Calvin
Quality Assurance Manager

MTN




B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
2	175	EA	2600-LW		1613528	ALCOA TORRANCE/CAMLO	71286		


Jason Lewis
Vice President of Quality

04/10/14

**Alcoa
Fastening
Systems**



Shipper ID: 841354

Page: 1

Sold To: 5574
B/E AEROSPACE, INC.
ATTN: ACCOUNTS PAYABLE
P.O. BOX 025263
MIAMI, FL 33102-5263
USA

Ship To: 55740014
B/E AEROSPACE CONSUMABLES
9835 NW 14TH ST
MIAMI, FL 33172
USA

Shipped From:
AFS -TORRANCE
AEROSPACE PRODUCTS
TORRANCE OPERATIONS
3000 WEST LOMITA BLVD.
TORRANCE, CA 90505
TEL: 310-530-2220
USA

Ship Date: 04/30/13
Print Date: 04/30/13
Time: 09:25:23

Ship Via: FED EX GRD
INCO Terms: FCA TORRANCE

Container/Weight:
Carrier Shipment Ref: 841354
Bill Lading #:

SHIP VIA :FED EX G

BUYER: OLGA

PHONE:

MATERIAL COMPLIES WITH DEARS 252.225-7009 PREFERENCE FOR DOMESTIC SPECIALTY METALS" WITH ITS ALTERNATE 1

***SHIP VIA FEDX GRD COLLECT ACCT# 011-0149-0 IF 150 LBS OR MORE SHIP FED EX FREIGHT ECONOMY COLLECT ACCT# 018757

DO NOT SHIP BY ANY OTHER WITHOUT PROPER WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.

** BAR CODE PER QAP 33 CLAUSE P REQUIRED **

** QAP 33.0 REV F CLAUSES: A,A.1,B,C,E,H,P,U,V. CLAUSE A.3 GENERAL TERMS APPLIES.

Sales Order: F430267 Order Date: 04/10/12 Purchase Order: 0HEE59

Remarks: VITA

Ln	Item Number	Description	Rev	Qty Shipped	Qty B/O UM
3	BACW10X4	LOCKWASHER (2600-LW)		63729.0	25335.0 EA
	TSO C148				
	Cust Line #: 2				
	Customer Item: BACW10X4				
	Required Date: 04/01/13	Promised Date: 04/10/13			
	C OF C				
	DUAL CERT TO HS4432-2 &3D0050-3 ***				
	Loc/Lot: S5FLR 1613528			63,729.00	COO: US
	HTS CODE: 7318220000				
	SCHEDULE-B NUMBER: 7318220000	ECCN: 9A991			

The export classification appears above. You are responsible for all

ALCOA GLOBAL FASTENERS, INC.

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY (IN AMOUNT, QUANTITY, ETC.), BETWEEN THE GOODS ACTUALLY SHIPPED AND / OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NO LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON.

CUSTOMER'S COPY



Page: 2

Ship To: 55740014
B/E AEROSPACE CONSUMABLES
9835 NW 14TH ST
MIAMI, FL 33172
USA

Ship Date: 04/30/13
Print Date: 04/30/13
Time: 09:25:23

Container/Weight:
Carrier Shipment Ref: 841354
Bill Lading #:

related export license requirements.

PACKING SLIP

ALCOA GLOBAL FASTENERS, INC.

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CUSTOMER'S COPY

**Alcoa
Fastening
Systems**



Shipper ID: 841354

Page: 1

Sold To: 5574
B/E AEROSPACE, INC.
ATTN: ACCOUNTS PAYABLE
P.O. BOX 025263
MIAMI, FL 33102-5263
USA

Ship To: 55740014
B/E AEROSPACE CONSUMABLES
9835 NW 14TH ST
MIAMI, FL 33172
USA

Shipped From:
AFS -TORRANCE
AEROSPACE PRODUCTS
TORRANCE OPERATIONS
3000 WEST LOMITA BLVD.
TORRANCE, CA 90505
TEL: 310-530-2220
USA

Ship Date: 04/30/13
Print Date: 04/30/13
Time: 09:25:23

Ship Via: FED EX GRD
INCO Terms: FCA TORRANCE

Container/Weight:
Carrier Shipment Ref: 841354
Bill Lading #:

SHIP VIA :FED EX G

BUYER: OLGA

PHONE:

MATERIAL COMPLIES WITH DFARS 252.225-7009 PREFERENCE FOR DOMESTIC SPECIALTY METALS" WITH ITS ALTERNATE 1.

***SHIP VIA FED EX GRD CORRECT ACCT# 0331-014970 IF 150 LBS OR MORE SHIP FED

EX FREIGHT ECONOMY COLLECT ACCT# 018757 ***

DO NOT SHIP BY ANY OTHER WITHOUT PROPER WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0%.

** BAR CODE PER QAP 33 CLAUSE P REQUIRED ***

** QAP 33.0 REV F CLAUSES: A,A.1,B,C,E,H,P,U,V. CLAUSE A.3 GENERAL TERMS

APPLIES.

Sales Order: F430267 Order Date: 04/10/12 Purchase Order: 0HEE59

Remarks: VITA

Ln	Item Number	Description	Rev	Qty Shipped	Qty B/O UM
3	BACW10X4	LOCKWASHER (2600-LW)		63729.0	25335.0 EA
	TSO C148				
	Cust Line #: 2				
	Customer Item: BACW10X4				
	Required Date: 04/01/13	Promised Date: 04/10/13			
	C OF C				
	DUAL CERT TO HS4432-2 & 3D0050-3 ***				
	Loc/Lot: S5FLR	1613528		63,729.0	COO: US
	HTS CODE: 7318220000				
	SCHEDULE-B NUMBER: 7318220000.	ECCN: 9A991			

The export classification appears above. You are responsible for all

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted below were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

[Signature]
Director of Quality Assurance
Torrance Operations

ALCOA GLOBAL FASTENERS, INC.

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY (IN AMOUNT, QUANTITY, ETC.), BETWEEN THE GOODS ACTUALLY SHIPPED AND / OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NO LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON.

CUSTOMER'S COPY



Page: 2

Ship To: 55740014
B/E AEROSPACE CONSUMABLES
9835 NW 14TH ST
MIAMI, FL 33172
USA

Ship Date: 04/30/13
Print Date: 04/30/13
Time: 09:25:23

Container/Weight:
Carrier Shipment Ref: 841354
Bill Lading #:

related export license requirements.

Total Qty Shipped: 63,729 *****

CERTIFICATION

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**Director of Quality Assurance
Torrance Operations**

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CUSTOMER'S COPY

**Alcoa
Fastening
Systems**



3000 W Lomita Blvd
Torrance, California 90505 USA
Tel: 1 310 530 2220
Fax: 1 310 784 4320

Processing Certification

377807

Date

04/26/2013

Lot Number

1599281

Lot Quantity

61043

Part Number

2600-LW

Type of Process

**CADMIUM PLATE
TYPE II, CLASS 2**

I.B.M. Number

415599

Specification

AMS-QQ-P-416C

Material Type

C1075

Mony Barkol

Director of Quality Assurance



APR 26 2013

Lab Tech Stamp / Date

1613588

Lock Washer



08/12/2012 10:08 FAX

08/12/2012 09:53

5629215984

Transcontinental Metals

0002/0002

PAGE 31/31

L & T PRECISION SLITTING
14015 GRACEBEE AVE
NORWALK, CA 90650
PHONE: 562-921-5954
FAX: 562-921-6804

Date : 03-09-12

Material Certification Certification of Conformance

Sold To: Transcontinental Metals Ship To: Same

AFS 272670



Customer P.O. No. 8712

L&T P.O. No. 98379

JUN 12 2012

Size: .015 x 1.812

Type:

Specifications: Astm-A684/684M-10a

C-1075 App

Net Weight: 1034#

Heat ID No. NLPP2859

CHEMICAL ANALYSIS

C	Mn	P	S	Si	Ni	Cr	Cu	Mo	Resi
.73	.54	.006	.008	.158	.070	.14	.15	.020	
W	V	Sn	Ti	Al	Ca	Zr	Co	N	B
			.001						

MECHANICAL AND PHYSICAL PROPERTIES

Yield	Tensile	Elong 2%	Hardness	Bend Test
			86-15T	OK

The Material Listed on This Certification Meets All Specifications Indicated

By: *[Signature]*
L & T Quality Control Dept.

MW Source

Lock Washer 1613528



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
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www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
6	200	EA	AN4C13A		327447	CALIFORNIA SCREW PRO. 82507			


Jason Lewis
Vice President of Quality

04/09/14

Inv # 04/09/14



CALIFORNIA SCREW PRODUCTS CORPORATION
14957 GWENCHRIS COURT
PARAMOUNT, CALIFORNIA 90723-3423
TEL (562) 633-6626
FAX (562) 633-2082

PACKING SLIP

Original : 35230

*** Parts Manufactured in the USA ***

Sold To:
003635 B/E AEROSPACE CONSUMABLE MANAGEMENT P.O. BOX 025263 MIAMI, FLA 33102-5263

Ship To:
***** B/E AEROSPACE CONSUMABLE MANAGEMENT 9835 NW 14TH ST. MIAMI, FLA 33172

Customer P.O. No.		Sales Order	Date	Ship Via		Job No.
OSHL48		53957	03-21-14	FED EX GROUND/WATKIN		327447
Pos	Item	Ordered	Delivered Qty	Unit	Weight	No. of Cartons

10	AN4C13A	25000	25000	ea	624	16

B/E Aerospace, Inc. - Consumables Management	
Self Release	
Signature and Stamp:	<i>Macelina Torres</i>
Date:	MAR 24 2014



**CALIFORNIA SCREW PRODUCTS CORP.**

14957 GWENCHRIS CT. PARAMOUNT, CA 90723

P: 562-633-6626

F: 562-529-7108

CAGE NUMBER : 82507

Airbus UK Approval No. AUK/SA/30144

Job Number : 327447

BAE/AG/30235 / MAA

TEST REPORT

Part Number : AN4C13A
Customer : B/E AEROSPACE CONSUMABLE MANAGEMENT
Procurement Spec. : NASM6812 REV. 3
Surface Finish Spec : AMS2700 REV.E
Heat Treat Spec : AMS2759/5 REV. D
Mgntc Permeability : N/A

Part Standard : NASM3-20 REV. 2
Cust. Purchase Order Number : OSHL48
Thread Size & Form : .250-28 UNF-3A
Thread Spec : MIL-S-7742 REV. D
Sample Size Spec. : NASM6812 REV. 3

Shipped Quantity*: 25000
Mfg Quantity: 26000
Matl Spec: AMS 5628 REV. F
Item Description: Bolt
Heat Number: 567862

* Actual piece count is within +/- 2% of the shown lot quantity.

NON-DESTRUCTIVE TESTS / SUBCONTRACTED (SEE CERTIFICATION)

Sample Size : 50 specimens

Inspection Results:

Accept : 50

Reject : 0 specimens

Magnetic Particle : ASTM E1444M-12

Fluorescent Penet. : N/A

METALLURGICAL EXAMINATION RESULTS

Sample Size : 5 specimens

Accept : 5

Reject : 0

Lab Mount No. : 44958

GRAIN SIZE : 8.0

HEAD STRUCTURE : Accept

LAPS : Accept

MICRO STRUCTURE : Accept

FILLET COLD WORKED : Accept

DECARB : Accept

SEAMS : Accept

CARBURIZED : Accept

GRAIN FLOW HEAD : Accept

GRAIN FLOW THREAD : Accept

CRACKS : Accept

THREAD RUN OUT : Accept

MECHANICAL TESTS RESULTS

ULTIMATE TENSILE STRENGTH (lbs.) - Loc. of Failure: Threads

Sample Size : 5 specimens

Accept : 5

Reject : 0

Minimum Req.: 4080

Maximum Req.: 0

1. 5710	2. 5673	3. 5666	4. 5655	5. 5628	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

SHEAR (lbs.) S/D : SINGLE

Sample Size : 5 specimens

Accept : 5

Reject : 0

Minimum Req.: 3680

1. 4422	2. 4463	3. 4396	4. 4444	5. 3999	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

HARDNESS TEST

Sample Size : 5

Hardness Req. RC : 26-32

Hardness Results : 27-28

STRESS RUPTURE TEST

- N/A

Load (Lbs.)

:

0

Temperature (F)

:

0

Periodic test, REF Job No.

Sample Size : 0

Hours

:

0

**DFAR 252.225.7009
COMPLIANCE**

FATIGUE TEST

- N/A

Cycles

:

0

Min Req. : 0

Sample Size : 0

Low Load (lbs.)

:

0

High Load (lbs.)

:

0

TORQUE TEST

- N/A

Sample Size : 0

Load (Lbs/in)

:

0

STRESS DURABILITY TEST - N/A

Sample Size : 0

LOAD (Lbs.)

:

0

Hours: 0

STATEMENT OF CONFORMANCE:

This report relates only to items inspected/tested. Deviations from standard test methods, if any, are noted, and results from subcontracted inspection or testing, if any, are identified. All items were manufactured in the USA under a quality management system, which complies with ISO 9001 and with AS 9100. CALIFORNIA SCREW PRODUCTS CORP. hereby states: That the above product is mercury free; that the above listed lot has been produced, sampled, tested, inspected and marked in accordance with all requirements and that the product complies with all specification and contract requirements; that evidence of which is in the files of our company subject to examination. This report shall not be reproduced except in full unless authorized in writing by CALIFORNIA SCREW PRODUCTS CORPORATION.

**MARIAELENA
TORRES**

B/E Aerospace, Inc. - Consumables Management

Self Release

Signature and Stamp:

MAR 24 2014

Date:

CS

FINAL INSPECTOR

(Name, Signature, Stamp and Date)

MAR 24 2014

CERTIFICATE OF TESTS

CERT SERIAL# 000870778



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

ABNAHMEPRUEFZEUGNIS

J/N 327447

CERTIFICAT DE CONTROLE

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

04/08/13

CUSTOMER / BESTELLER / CLIENT

CALIFORNIA SCREW PRODUCTS CORP

PO BOX 228
PARAMOUNT

CA 90723

SELER / VERKÄUFER / VENDEUR PAGE 1 OF 2

RAN

CUSTOMER ORDER NO. / BESTELL-NR. / N° DE COMMANDE	CARPENTER NO. / WERKS-NR. / N° DE REFERENCE INTERNE	DATE / DATUM / DATE	WEIGHT / GEWICHT / POIDS
123558	W67009	04/08/13	1904.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 567862

PRODUCT DESCRIPTION: TYPE 431 ANNEALED COLD FINISH SEAM FREE C HDG CL N2 HVY
----- CU/MOLY/SOAP

SPECIFICATION: AMS 5628 (REFFIRMED) REV F (10/ /06)
----- MIL-S-18732D "CAP OF" MOD NICKEL NOTICE 1 (03/19/91)
----- ASTM-A493-09

SIZE 0.246500 IN. (6.26 MM) RD WIRE

PRIMARY HEAT CHEMISTRY (WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
0.16	0.65	0.51	0.017	0.001	16.20
NI (XRF)	MO (XRF)	CU (XRF)	N (FUS)		
1.57	0.02	0.07	0.05		

THIS MATERIAL CONFORMS TO THE TECHNICAL REQUIREMENTS OF THE AMS SPECIFICATION REFERENCED ABOVE.

DISCS MACROETCHED AND APPROVED.

TENSILE AS SHIPPED, KSI (MPA) 98.5 (679)

MAGNETIC PARTICLE: FREQUENCY = 0 / SEVERITY = 0

MAX QUENCH HARDNESS, HRC - 53 - 1875 F (1024 C) 30 MN OIL TREAT

CAPABILITY

1875 F (1024 C) 30 MN
QUENCH IN AGITATED OIL AT 125F +/- 25F COOL T
1175 F (635 C) , 03 HR AIR COOL

RETAINED AUSTENITE - NONE (VILELLAS)

MICROSTRUCTURE - FERRITE - NONE (VILELLAS)

GRAIN SIZE PER ASTM E112: 7 (VILELLAS)

RMK 8993
JOSE ERVANTE
APR 17 2013
32 CSP

DFAR 252.225.7009
COMPLIANCE

CONTINUED ON NEXT PAGE

CERTIFICATE OF TESTS

CERT SERIAL# 000870778



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

ABNAHMEPRUEFZEUGNIS

J/N 327447

CERTIFICAT DE CONTROLE

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- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

04/08/13

CUSTOMER/BESTELLER/CLIENT

SELER/VERKÄUFER/VENDEUR PAGE 2 OF 2

CALIFORNIA SCREW PRODUCTS CORP

PO BOX 228
PARAMOUNT

CA 90723

RAN

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
123558	W67009	04/08/13	1904.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE :

567862

CAPABILITY

1875 F (1024 C), 01 HR
-100 F (-73 C), 02 HR
WARM TO ROOM TEMPERATURE.
550 F (288 C), 02 HR
550 F (288 C), 02 HR

OIL TREAT

AIR COOL
AIR COOL

(T) RANSVERSE	(L) ONGITUDINAL	L
YIELD STRENGTH, (0.20 %) KSI (MPA)	151.0 (1041)	
TENSILE STRENGTH, KSI (MPA)	216.0 (1489)	
ELONGATION IN 2.00", %	17.0	
REDUCTION OF AREA, %	50.0	

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2010 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 10-1385R BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

SHERRY L KREIDER
ADMINISTRATOR - QUALITY
CARPENTER TECHNOLOGY CORPORATION

8993

JOSE BERNANDES

APR 17 2013

DFAR 252.225.7009
COMPLIANCE

Sherry Kreider

**Huntington Park Division**

3370 Benedict Way Huntington Park, CA 90255
 Phone: 323.583.1231
 QC Fax: 323.583.9640 Accounting Fax: 323.583.0515
 www.bodycote.com

Bill To

California Screw Products Corporation
 14957 Gwenchris Court
 Paramount, CA 90723

Cert No. 78-190261
CRT1914700078SI
 Certified: 2/18/2014

Ship To

Ship To: 78-15257-1
California Screw Products Corporation
14957 Gwenchris Court
Paramount, CA 90723

We are pleased to submit our CERTIFICATION OF HEAT TREATMENT of the following:

Order No 262617	PO Number 136576	PL Number 2/11/14	Received 2/10/2014 3:00:32 PM
Requirements			Value
Surface Hardness Min (HRC)			27.0
Surface Hardness Max (HRC)			32.0
Qty 26000	Wgt 600	Part No. AN4C13A	Part Name Rev NA
Material 431			
Part Description Job No. 327447 Part Standard NASM3-20 REV 2 CODE 4135 HEAT NO. 567862 Hardened, Cold Stabilized and Tempered to 27-32 HRC per AMS 2759/5 Rev D and the Purchase Order.			
1 Bodycote Coupon			
26000	600	Total	

We hereby certify that the parts described on this document were Heat Treated in accordance with the above noted specifications and the following results were obtained with standard approved methods.
 Parts processed free of mercury contamination.

Recorded Values	Value
Surface Hardness Min (HRC)	30.0
Surface Hardness Max (HRC)	31.0
Quantity Inspected = (Integer)	5

Furnace #	Process	Temperature	Time	Quench
502	Vacuum Harden	1875F	30 Minute	Oil/122F
604	Cold Stabilize	-100F	2 Hour	
434	Temper	1125F	3 Hour 30 Minute	
431	Temper	1125F	3 Hour 30 Minute	

Lab Results:

Decarb contamination results conform to specification requirements.

All processes involved in the production of these articles and requiring specific process approval have been so approved and certificates are on file subject to examination.

Bodycote - H.P.

Certified: 2/18/2014

By: Idania Recinos QC Tech

California Screw Products Corporation
 (Fax) 1 (562) 633-2082



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: P023714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
4	25	EA	AN310C3		0508645-340	GREER STOP NUT / SPS	27687		


Jason Lewis
Vice President of Quality

04/09/14

GREER STOP NUT

SPS 481 McNALLY DRIVE • NASHVILLE, TN 37211
TECHNOLOGIES

PACKING LIST

PACKING LIST

PREVENT FRAUD

Any alteration or misuse of this certificate, or any unauthorized rework or modification of the identified products voids all manufacturer's warranties, and may lead to civil damages and/or criminal penalties.

CUSTOMER NBR 01-0001-00427568-0001

B/E AEROSPACE CONSUMABLES
MANAGEMENT
9835 NW 14TH ST.,
MIAMI, FL 33172

PUBLISHED 11/15/13

ORDER NBR 103445-001

**REFRT# 11/15/13 09:43:32

ORDER DATE 06/28/13

F/S # 103445001

PAGE 1

B/E AEROSPACE CONSUMABLES
MANAGEMENT (MIAMI)
P O BOX 025263
MIAMI, FL 33102-5263

CUSTOMER PO		TERMS		DATE	
01-0001-00427568-0001		N		11/15/13	
CARRIER CD/DESC		NET TO DAYS		DATE	
N		10		11/15/13	
TEK ANY TRUCKING FIRM		COLLECT		REG	
LNS		COLLECT		REG	
PRODUCT CODE		DESCRIPTION		QUANTITY	
001 0508645		L79SC310 1032		25000	
		UNDER TOWN SHIP FEDEX GROUND		C	
		H0331-0149-0 MARK COLLECT			
		OVER 100 LBS SHIP FEDEX GROUND			
		ACCT #081757			
		SHIP FEDEX GROUND			
		CHEMICAL AND PHYSICAL CERTS CERT TO BOTH			
		SHIP VARIANCE +/- 5%			
		TOTAL QUANTITY- 25000			

LOT NO.	0508645-340					All parts are shipped free of mercury contamination. All damages exceeding price are excluded. GREEN NYLON INSERT is a registered trademark of GREER STOP NUT	
QUANTITY	3,859						
AREA	3A3						
FREIGHT RECORD	WEIGHT	BOXES	PREPD	COLL	CARRIER	BILL OF LADING	FREIGHT CHARGE
	116	1		X	Field Ex Ground		

07/29/2013 14:30

FAX

P.007/009

CERTIFICATE OF TESTS

CERT SERIAL# 000896439



Carpenter Technology Corporation
101 West Main Street, Reading, PA 19601
Tel: (610) 260-0000 (260) 260-0000

ABNAHMETZULFEUGNIS

CERTIFICAT DE CONTROLE

- ALL MATERIALS ARE FURNISHED UNDER "AS FURNISHED" BASIS. THERE IS NO WARRANTY ON THIS PRODUCT.
- THE USER SHALL BE RESPONSIBLE FOR THE PROPER USE OF THE PRODUCT. THE USER SHALL BE RESPONSIBLE FOR THE PROPER USE OF THE PRODUCT.
- MATERIAL IS FURNISHED FREE FROM DEFECTS, DAMAGE, ALLOY AND SOURCE CONTAMINATION.
- WILL BE RESPONSIBLE FOR THE PROPER USE OF THE PRODUCT.

07/29/13

CUSTOMER/END USER/CLIENT

ORDER STOP NUT INC
QUALITY DEPARTMENT
481 N. HALLY DRIVE
HARRISVILLE, TN 37211

RECEIVED
N 30/5/13

h.s. 8/7/13

CARPENTER TECHNOLOGY CORP

101 W. MAIN STREET
READING, PA 19601

SHEET/VERBALEN/VERBODEN-PAGE 1 OF 2

CUSTOMER ORDER NO./ARTIKEL-NR./N° DE COMMANDE	CUSTOMER NO./MATERIAL-NR./N° DE REFERENCE INTERNE	DATE/DATE/DATE	WEIGHT/GEWICHT/POIDS
0013175076	PHL492501 L25053	07/29/13	1223.000

HEAT NUMBER / VERBODEN / N° DE COULEUR: 744549

UNS NUMBER S30300

PRODUCT DESCRIPTION: CARPENTER STAINLESS TYPE 303 ANNEALED COLD DRAWN
SHEET NUMBER: 025037

SPECIFICATION: ASTM-A582-12M1 CONDITION A
AMS 5820-2001 REV 0 1/30/07
SPE 5820-2001 REV A 08/06/07
ASTM-A194-12A GR. 8F/89A CHEM ONLY

SIZE 0.371000 IN. (9.42 MM) HEX BAR

LOT 1

PRIMARY HEAT CHEMISTRY (WT%): (TEST METHOD IS SHOWN IN PARENTHESES)

C (COM) 0.05 1.79 NI (XRF) 0.56

SI (XRF) 0.03

P (XRF) 0.51

S (COM) 17.38 (XRF)

Mn (XRF) 0.35 MO (XRF) 0.42

CU (XRF)

SOLUTION ANNEALED TO PROVIDE A MICROSTRUCTURE FREE FROM CONTINUOUS GRAIN
BOUNDARY CARBIDE PRECIPITATION (NETWORK).

IN PRODUCTION OR TESTING OF MATERIAL SHIPPED AGAINST THIS ORDER, NO DIRECT
CONTACT WITH THE MANUFACTURER, MERCURY TUNGSTEN, MERCURY SEALS OR MERCURY IN GLASS
THERMOCOASTAL TUBES SHALL BE USED. IN SUCH PRODUCTION OR TESTING HAS MERCURY
BEEN HANDLED IN THE IMMEDIATE VICINITY OF SUCH MATERIAL.

THIS MATERIAL CONFORMS TO THE TECHNICAL REQUIREMENTS OF THE AMS SPECIFICATION
REFERENCED ABOVE.

DISCS MACROETCHED AND APPROVED.

MAGNETIC PERMEABILITY <2.00

HARDNESS AS SHIPPED 248HWN (99HRBW)

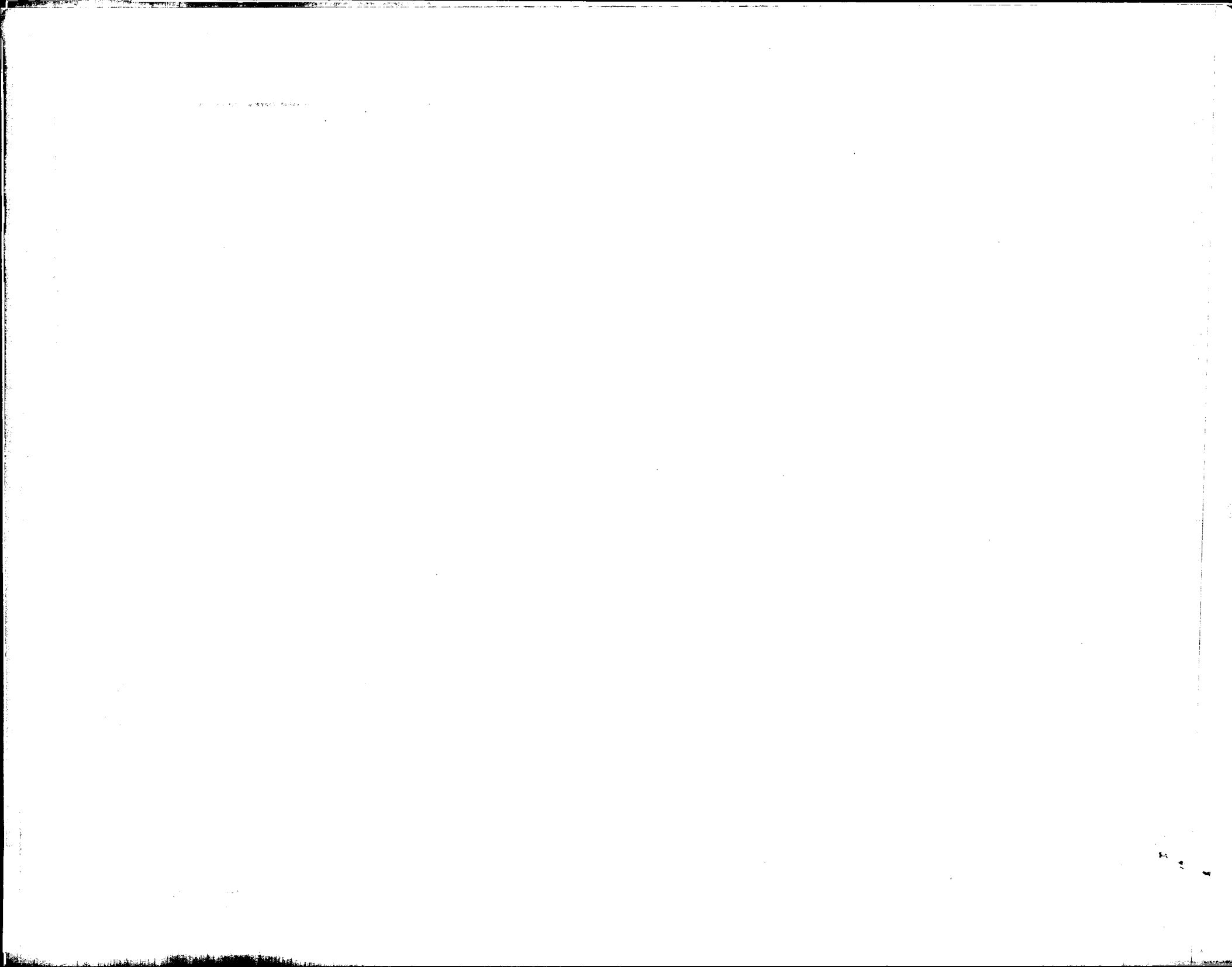
TENSILE AS SHIPPED, KSI(MPA) 103.0 (710)

ACTUAL SPECIMEN SIZE .369"

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING
COUNTRY TO DRAMA REQUIREMENTS 252.223-701. THIS MATERIAL IS A QUALIFYING
COUNTRY 252.223-701.1, SUPERSEDED BY DRAMA REQUIREMENTS 252.223-7009 AND
252.223-7009.

CONTINUED ON NEXT PAGE

The customer is hereby notified that the material is furnished under "AS FURNISHED" BASIS. THERE IS NO WARRANTY ON THIS PRODUCT. THE USER SHALL BE RESPONSIBLE FOR THE PROPER USE OF THE PRODUCT.





B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


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The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
3	75	EA	AN310-4		0502115-490	GREER STOP NUT / SPS 27687			


Jason Lewis
Vice President of Quality

04/09/14

GREER STOP NUT

SPS 481 McNALLY DRIVE - NASHVILLE, TN 37211

TECHNOLOGIES

PACKING LIST

PREVENT FRAUD

Any alteration or misuse of this certificate, or any unauthorized rework or modification of the identified products voids all manufacturer's warranties, and may lead to civil damages and/or criminal penalties.

CUSTOMER NBR 01-0001-00427568-0001

B/E AEROSPACE CONSUMABLES
MANAGEMENT

9835 NW 14TH ST.

MIAMI, FL

33172

THE PRODUCTS THAT ARE COVERED BY THIS AGREEMENT ARE OF U.S. ORIGIN OR OTHERWISE SUBJECT TO U.S. EXPORT AND OTHER FOREIGN TRADE CONTROLS. THE EXPORT, DEEMED EXPORT, RE-EXPORT, OR RELEASE OF THESE PRODUCTS TO OTHER COUNTRIES OR PARTIES MAY REQUIRE THE PRIOR APPROVAL OF THE U.S. GOVERNMENT. DIVERSION OF THESE PRODUCTS FROM THE AUTHORIZED DESTINATION CONTRARY TO U.S. AND INTERNATIONAL LAW IS PROHIBITED. THE PURCHASER AGREES TO COMPLY WITH APPLICABLE LAWS AND REGULATIONS OF THE UNITED STATES, OTHER RELEVANT JURISDICTIONS, AND PERTINENT INTERNATIONAL ORGANIZATIONS PERTAINING TO THE EXPORT, DEEMED EXPORT, RE-EXPORT, OR RELEASE OF THESE PRODUCTS. ANY VIOLATIONS OF THIS CLAUSE, AS DETERMINED SOLELY BY SPS TECHNOLOGIES AND OR GREER STOP NUT, SHALL BE DEEMED A MATERIAL BREACH OF THIS AGREEMENT.

CLAIMS FOR GOODS MUST BE MADE ON RECEIPT OF GOODS. NO MATERIAL ACCEPTED FOR RETURN WITHOUT OUR PERMISSION.

PUBLISHED 05/29/13

ORDER NBR 081985-001

ORDER DATE 09/28/12

P/S # 081985001

PAGE 1

B/E AEROSPACE CONSUMABLES
MANAGEMENT (MIAMI)

P O BOX 025263

MIAMI, FL

33102-5263

CUSTOMER P.O.		TERMS		SHIP FROM	SCHEDULE DATE			
OKT890		N	NET 30 DAYS	AI	05/29/13		PO # OKT890	
CARRIER CD/DESC		CARRIER NBR		FREIGHT		REG	TERR	CREP
TRK ANY TRUCKING ITEM				COLLECT		2751	52	0103
LNE	PRODUCT CODE	DESCRIPTION		ALTERNATE CODE		QUANTITY	UM	UNIT PRICE

001 0502115

AN310-4
UNDER 150# SHIP FEDEX GROUND ACCT
#0331-0149-0 MARK COLLECT
OVER 150 LBS SHIP FED EX NATIONAL LTL
ACCT #081757
SHIPPING BOX WEIGHT LIMIT 40 LBS
CHEMICAL AND PHYSICAL CERTS
SHIP VARIANCE +/- 10%
TOTAL QUANTITY- 125000
ROMAN JOHNSON/FGH

125000 C

5/29/13

133,343

LOT NO.	QUANTITY	AREA	WEIGHT	BOXES	PREPD	COLL.	CARRIER	BILL OF LADING	FREIGHT CHARGE
0502115-470	42,845	3D3	1800	24		X	FedEx		
0502115-500	44,630	4E4							
0502115-490	40,308	4D5							

All parts are shipped free of mercury contamination. All damages exceeding price are excluded.

GREEN NYLON INSERT is a registered trademark of GREER STOP NUT

TR FREIGHT RECORD

3003 REV. 8/11



Greer Stop Nut
481 McNally Drive
Nashville, TN 37211

Phone: 615-832-8375
Fax: 615-331-5070
E-mail: greer@spstech.com

CERTIFICATE OF CONFORMANCE

Date of Certification: May 29, 2013

Sold To: B/E Aerospace Consumables Management
9835 NW 14th St
Miami, FL
33172

Purchase Order No: OKTR80

Customer Part No: AN310-4 Rev. 10 & NASM310 Rev. 1

Item No: 001

Greer Part No: F22SC310-0428 Nomenclature: Nut, Plain, Castellated

Lot No/Serial No: 0502115-490 (Ref. 0502116-10R) Qty. Manufactured: 47,588 Qty. Shipped: 40,868

Manufacturing Date: 4-23-13

Material: 1137 Material Specification: AMS 5024H, ASTM A108-07 Material Supplier: Neisen Steel Company

Mill Heat No: 20216060 Greer Steel Date: CJ644J

Procurement Spec: FF-N-836E Threads: MIL-S-7742 Rev. D Am. 1

Proof Load: 4,080 lbs. Tested To: 4,080 lbs. Sample Size: 5

Non-Destructive Testing: Magnetic Particle Inspection Specification: ASTM E-1444-11 Sample Size: 29
Magnetic Particle Inspection in accordance with MT2000 Rev. 14 DTD 5-31-12 as modified by MT69811 Rev. 5 DTD 5-5-10

Surface Finish: Cadmium & Yellow Chromate Specification: AMS-QQ-P-416 Type II Class 2 Rev. C

The products identified on this certificate have been manufactured, tested and inspected in accordance with, and unless noted above, conforms in all respects to the applicable drawings, specifications and/or standards. Complete reports of physical and chemical tests are on file for on-site examination. If no specified customer quality level is required, goods conform to seller's quality level. Reproduction except in full is strictly prohibited without written approval of Greer Stop Nut. All damages exceeding price are excluded. Mercury free clause: We certify that no possibility exists for mercury contamination to occur during manufacture, assembly or testing of parts on this contract. This document relates only to the items tested. Parts were manufactured in the United States of America. Sample plans are carried out to current standard/specification revision.

G and Green Nylon are Trademarks of Greer Stop Nut

Fran Glover
Quality Assurance Coordinator

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861. It is a very important document, as it contains the President's message to the Congress at the beginning of his first term. The letter is written in a formal, dignified style, and it is one of the most important documents in American history.

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States meeting DFAR's compliance.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
		--	Subcontracted test performed by laboratory not in Charter Steel system.	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Specification	CSSM	CSSR/CSSP	CSFP	CSCM/CSCR
Chemistry Analysis	ASTM E415; ASTM E1019	X			X
Macroetch	ASTM E381	X			X
Hardenability (Jominy)	ASTM A255; SAE J406; JIS G056	X			X
Grain Size	ASTM E112	X	X	X	X
Tensile Test	ASTM E8; ASTM A370		X	X	X
Rockwell Hardness	ASTM E18; ASTM A370	X	X	X	X
Microstructure (spheroidization)	ASTM A892		X	X	
Inclusion Content (Methods A, E)	ASTM E45		X		X
Decarburization	ASTM E1077		X	X	X

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/13.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers.
 - Both sides of all pages must be reproduced in full.
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.





CHARTER STEEL

A Division of
Charter Manufacturing Company, Inc.

EMAIL

1658 Gold Springs Road
Saukville, Wisconsin 53080

(262) 268-2400

1-800-437-8789

FAX (262) 268-2570

CHARTER STEEL TEST REPORT Reverse Has Text And Codes

Nelsen Steel Co.
9400 Belmont Ave.
Franklin Park, IL-60131
Kind Attn: Ken Koeppl

CUSTOMER	55645
CUSTOMER PART	H05312R1137
CHARTER PART NUMBER	70033937
HEAT	20216060
SHIP TO	2033242
DESCRIPTION	1137 R CGP CG FMQ 17/32
PROCESS	HR
ROLLING SIZE	17/32

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Lab Code: 125544

Test Results of Heat Lot# 20216060

CHEM	C	MN	P	S	SI	NI	CR	MO	CU	SN	V
%WT	.39	1.41	.008	.11	.08	.05	.09	.01	.12	.009	.001

	AL	N	B	TI	CA	NB	SB	AS	PB
%WT	.001	.0070	.0001	.001	.0013	.001	.002	.005	.002

JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM12
	56	54	50	40	33	28	27	26	25	24	21

	JOM14	JOM16
	21	20

JOMINY SAMPLE TYPE ENGLISH - C DI = 1.73
CHEM. DEVIATION EXT. - GREEN *

of Tests

Test Results of Rolling Lot# 2033242
Min Value Max Value

Mean Value

NUM DECARB = 1 AVE DECARB = .003
REDUCTION RATIO = 221.1

Specifications:

Manufactured per Charter Steel Quality Manual Rev 9-08-01-09
Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = 1137-512 Revision = 5 Dated = 08-AUG-11

Additional Comments:

Charter Steel
Cuyahoga Heights, OH, USA



Page 1 of 1

This MTR supersedes all previously
dated MTRs for this order

Janice Barnard
Janice Barnard
Manager of Quality Assurance
07/25/2012

Rep: Lead, Fax, Mail



B/E Aerospace, Inc.

Page 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
5	100	EA	AN4-42A		323300	CALIFORNIA SCREW PRO	82507		


Jason Lewis
Vice President of Quality

04/09/14

Inv # 04/09/14



CALIFORNIA SCREW PRODUCTS CORPORATION
14957 GWENCHRIS COURT
PARAMOUNT, CALIFORNIA 90723-3423
TEL (562) 633-6626
FAX (562) 633-2082

PACKING SLIP

Original : 28769

Sold To:
003635 B/E AEROSPACE CONSUMABLE MANAGEMENT P.O. BOX 025263 MIAMI, FLA 33102-5263

Ship To:
***** B/E AEROSPACE CONSUMABLE MANAGEMENT 9835 NW 14TH ST. MIAMI, FLA 33172

Customer P.O. No.		Sales Order	Date	Ship Via		Job No.
OYN947		46954	09-16-11	FED EX GROUND/WATKIN		323300
Pos	Item	Ordered	Delivered Qty	Unit	Weight	No. of Cartons

10	AN4-42A	5556	5556	ea	363	11
----	---------	------	------	----	-----	----

Honeywell Source Accepted:	
Stamp Impression _____	
Date _____ SEP 16 2011	
RMRA # _____	

CALIFORNIA SCREW PRODUCTS CORP.

14957 GWENCHRIS COURT

PARAMOUNT, CALIF. 90723-3423

CAGE NUMBER : 82507

Job Number : 323300

Airbus UK Approval No. AUK/SA/30144

BAE/AG/30235 / MAA

TEST REPORT

Part Number : AN4-42A Part Standard : NASM3-20 REV. 2 Shipped Quantity*: 5556
 Customer : B/E AEROSPACE CONSUMABLE MANAGEMENT Cust. Purchase Order Number : OYN947 Mfg Quantity: 6000
 Procurement Spec. : NASM6812 REV. 2 Thread Size & Form : .250-28 UNF-3A Matl Spec: AMS 6322 REV. N
 Surface Finish Spec : AMS-QQ-P-416 REV. C Thread Spec : MIL-S-7742 REV. D Item Description: Bolt
 Heat Treat Spec : AMS2759/1 REV. E Sample Size Spec. : NASM6812 REV. 2 Heat Number: 10073780
 Mgntc Permeability : N/A * Actual piece count is within +/- 2% of the shown lot quantity.

* CONFORMS TO REQUIREMENTS OF AN3 THRU AN20 REV.12
 NON-DESTRUCTIVE TESTS / SUBCONTRACTED (SEE CERTIFICATION)

Sample Size : 32 specimens Inspection Results: Accept : 32 Reject : 0 specimens
 Magnetic Particle : ASTM E1444-05 Fluorescent Penet. : N/A

METALLURGICAL EXAMINATION RESULTS

Sample Size : 5 specimens Accept : 5 Reject : 0 Lab Mount No. : 41324
 GRAIN SIZE : N/A HEAD STRUCTURE : Accept LAPS : Accept MICRO STRUCTURE : Accept
 FILLET COLD WORKED : Accept DECARB : Accept SEAMS : Accept CARBURIZED : Accept
 GRAIN FLOW HEAD : Accept GRAIN FLOW THREAD : Accept CRACKS : Accept THREAD RUN OUT : Accept

MECHANICAL TESTS RESULTS

ULTIMATE TENSILE STRENGTH (lbs.) - Loc. of Failure: Threads Minimum Req.: 4080
 Sample Size : 5 specimens Accept : 5 Reject : 0 Maximum Req.: 0

1. 5516	2. 5699	3. 5494	4. 5614	5. 5495	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

SHEAR (lbs.) S/D : SINGLE Sample Size : 5 specimens Accept : 5 Reject : 0 Minimum Req.: 3680

1. 4606	2. 4316	3. 4403	4. 4376	5. 4419	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

HARDNESS TEST Sample Size : 8 Hardness Req. RC : 26-32 Hardness Results : 28-30

STRESS RUPTURE TEST - N/A Load (Lbs.) : 0 Temperature (F) : 0 Periodic test, REF Job No.
 Sample Size : 0 Hours : 0

FATIGUE TEST - N/A Cycles : 0 Min Req. : 0
 Sample Size : 0 Low Load (lbs.) : 0 High Load (lbs.) : 0

TORQUE TEST - N/A Sample Size : 0 Load (Lbs/in) : 0

SPARS 252.225-7014 ALT. 1
 COMPLIANCE

STRESS DURABILITY TEST - N/A Sample Size : 0 LOAD (Lbs.) : 0 Hours : 0

STATEMENT OF CONFORMANCE:

This report relates only to items inspected/tested. Deviations from standard test methods, if any, are noted, and results from subcontracted inspection or testing, if any, are identified. All items were manufactured in the USA under a quality management system, which complies with ISO 9001 and with AS 9100. CALIFORNIA SCREW PRODUCTS CORP, hereby states: That the above product is mercury free; that the above listed lot has been produced, sampled, tested, inspected and marked in accordance with all requirements and that the product complies with all specification and contract requirements; that evidence of which is in the files of our company subject to examination. This report shall not be reproduced except in full, unless authorized in writing by CALIFORNIA SCREW PRODUCTS CORPORATION.

MARIAELENA
 TORRES

Honeywell Source Accepted:

Stamp Impression

Date SEP 16 2011

RMRA. #



FINAL INSPECTOR

SEP 16 2011

(Name, Signature, Stamp and Date)



WireTech, Inc.

8440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

Cal Screw Products
14957 Gwenchris Ct.
Paramount, CA 90723
USA

WORK ORDER/
083494

CERTIFICATION

HEAT NO. /
10073780 /
SALES ORDER / RLS
839640 / 1
ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CERT# 911.01

J/N 323300

CUSTOMER P.O. 111282	CUSTOMER PART h1198	QUANTITY 2,583 Lbs	CARRIERS 2	LADING NO 00090289	SHIPMENT DATE 06/02/2011			
SPECIFICATION: C048740-102455A A-5740, AQ, SKFG, CHQ WIRE, SAIP Zinc Phosphate, Lime & Stearate Coating, Size:0.245/0.246 Specifications: AMS2301H, AMS6322N, MIL-S-8049A, AMEND. 1, H1198, AMS-S-8049-A								
CERTIFICATION REQUIREMENTS								
Chemical Properties								
C .41	Si .24	Mn .95	P .014	S .013	Cu .14	Ni .43	Cr .41	Mo .21
Physical Properties								
Grain Size Jominy 1	Jominy 2	Jominy 3	Inclusions Macro	Cleanliness	Mill Source			
6 5=52	8=44	10=37	S2-R1-C2	GOOD	F&S=0			
Country of Origin								
USA - DFAR Compliant								
Mechanical Properties								
TEST	UNITS	Results						
Tensile Strength	KSI	83.3						
Yield Strength	KSI	70.8						
% Elongation	%	29						
% Reduction of Area	%	71.6						
Rockwell Hardness B Scale	HRB (s)	86						

RMIR 8573
JOSE ERVANTES
6.3.2011
DFARS 252.225-7014 ALT. 1 COMPLIANCE

Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. "The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47."

REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL

Wire Tech, Inc. metallurgical laboratory is accredited in the following test: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IFI 140, inclusion rating per ASTM E 46, decarburization performed as per IFI 140. The reported Chemical and Physical Properties are Melt Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by A2LA or covered by Wire Tech, Inc. A2LA accreditation.

TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.

DFAR Material per Clauses 252.225-7014 ALT. 1, 252.225-7009, & 225.003(9)

"LATEST REVISIONS OF ASTM"

Material is free of mercury, radium, or alpha contamination.



CHARTER STEEL

A Division of
Charter Manufacturing Company, Inc.

EMAIL

1658 Cold Springs Road
Saukville, Wisconsin 53080
(262) 268-2400

CHARTER STEEL TEST REPORT

Reverse Has Text And Codes

1-800-437-8789

FAX (262) 268-2570

Wiretech Incorporated
6440 East Canning Street
Los Angeles, CA-90040
Kind Attn : Cert To Contact

J/N 323300

Cust P.O.	6513-3
Customer Part #	8740C1A080-C-R
Charter Sales Order	70011147
Heat #	10073780
Ship Lot #	4026728
Grade	8740 R SK FG AQ 21/64
Process	HRSA
Finish Size	21/64

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Test Results of Heat Lot# 10073780												
Lab Code: 7388	C	MN	P	S	SI	NI	CR	MO	CU	SN	V	
CHEM %WT	.41	.95	.014	.013	.24	.43	.41	.21	.14	.008	.001	
	AL	N	B	TI	NB							
	.027	.0070	.0001	.002	.002							
JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM11	JOM12
	57	57	56	55	52	51	47	44	39	37	37	38
	JOM13	JOM14	JOM15	JOM16	JOM18	JOM20	JOM22	JOM24	JOM26	JOM28	JOM30	JOM32
	35	34	33	32	31	31	30	29	29	29	29	28

JOMINY SAMPLE TYPE ENGLISH = B JOMINY LAB = 0358-01
MACRO ETCH SURFACE = 1 MACRO ETCH RANDOM = 1 MACRO ETCH CENTER = 1
AMS 2301 FREQUENCY AVERAGE = .03 AMS 2301 FREQUENCY INDIVIDUAL = .06
AMS 2301 SEVERITY AVERAGE = .02 AMS 2301 SEVERITY INDIVIDUAL = .03
CHEM. DEVIATION EXT. - GREEN =

Test Results of Rolling Lot# 1013507				
REDUCTION RATIO = 358:1				
Test Results of Processing Lot# 4026661,4026728				
	# of Tests	Min Value	Max Value	Mean Value
TENSILE	2.0	83.9	83.9	83.9
REDUCTION OF AREA	2	63	66	65
ROCKWELL B	2	80	81	81

TENSILE LAB = 0358-02

RA LAB = 0358-02

RB LAB = 0358-02

NUM DECARB = 3 FREE FERRITE DECARB = .000 FREE FERR & PARTIAL DECARB = .001
CP SPHERO % LAB = 0358-02 NUM SPHERO = 3 SPHERODIZATION = 83.3

Specifications: Manufactured per Charter Steel Quality Manual Rev 9.08-01-09
Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = COP 3010 Revision = M Dated = 12-MAR-03

Additional Comments: MEETS REQUIREMENTS OF SPECIFICATIONS AMS6322N/AMS2301J/MIL-S-6049A

Handwritten: J/N 8573
Stamp: ERVANTE 6.3.2011
Stamp: 032 QSP
Stamp: DEARB 252-225-7814 ALT. 1 COMPLIANCE

Charter Steel
Saukville, WI, USA



Page 1 of 1

Signature: Janice Barnard
Janice Barnard
Manager of Quality Assurance
07/15/2010

Rem: Load1,Fax0,Mail0

3/N323300

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Possible Laboratory	Specification
Chemistry Analysis	CSSM, CSCM/CSCR	ASTM E415; ASTM E1019
X-ray Fluorescence Stainless and Alloy Steel	CSCM/CSCR	ASTM E572
Macroetch	CSSM, CSCM/CSCR	ASTM E381
Hardenability (Jominy)	CSSM, CSCM/CSCR	ASTM A255; SAE J406; JIS G0561
Grain Size	CSSM	ASTM E112
Tensile Test	CSSR/CSSP, CSFP, CSCM/CSCR	ASTM E8; ASTM A370
Rockwell Hardness	All labs	ASTM E18; ASTM A370
Microstructure (spheroidization)	CSSR/CSSP, CSFP	ASTM A892
Inclusion Content (Methods A, E)	CSSR/CSSP, CSCM/CSCR	ASTM E45

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/11.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers
 - Both sides of all pages must be reproduced in full
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.



HMKH 8573
 Jose ERVANTEZ
 6.3.2011
 DFARS 151.225-7014 ALT. 1 COMPLIANCE



Certification

Tri-J Heat Treating

327 E Commercial St,

Pomona CA 91767

Phone: 909-622-9999 Fax: 909-622-1790

Order No.: 22351

Date: 08/12/2011

Entry Date: 08/10/2011

Page: 1

To: CALIFORNIA SCREW PRODUCTS COR
P.O.Box 228

PARAMOUNT CA 90723

Phone: 562-633-6626

Purchase Order No.: 114041

Job#: 323300

Material: 8740

1

We are pleased to provide you with the following Certification

Quantity	Part Number / Part Name / Part Description	Pounds
6,000	AN4-42A REV NA , NASM3-20 REV 2	400

Heat Treat AMS 2759 / 1 REV E

Harden to specific hardness

Insp. Type	Scale	Minimum	Maximum	Scale	Minimum	Maximum	Value
Customer Requirements:				Results:			
Hardness	HRC	27.0	32.0	Hardness	HRC	28.0	30.0
							6.0

Process Steps


Step: 1 Process: Heat Treat

Treat at 1575 F, Dew point 50, Oil Quench at 130 F.(1 Hr Min)

Step: 2 Process: Temper

Temper at 1100 F, 1 Hr for each 400 Lbs. MIN 2 HRS

ISO 9001:2008 REGISTERED



Gary Madrigal
QC Manager
Tri-J Heat Treating

Southwest Plating Company, LLC

1344 W. Slauson Ave.
Los Angeles, CA 90044-2824
Telephone (323) 753 - 3781
Fax (323) 753 - 9472

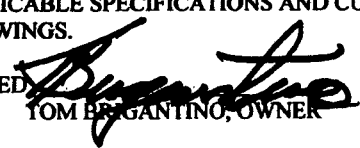
CERTIFICATION

DATE	INVOICE #
9/14/2011	127598

BILL TO
CA Screw Products Corp P.O. Box 228 Paramount, Ca. 90723

SHIP TO
CA Screw Products Corp 14957 Gwen Chris Ave. Paramount, Ca. 90723

P.O. NUMBER	TERMS	REP	SHIP	VIA	F.O.B.	PROJECT
114807	Net 30		9/14/2011			

QUANTITY	ITEM CODE	DESCRIPTION	PRICE EACH	AMOUNT
	# OF PIECES	6000	0.00	0.00
	PART NUMBER	AN4-42A REV.N/A NASM3-20 REV.2	0.00	0.00
	PANS	6	0.00	0.00
	JOB NUMBER	323300	0.00	0.00
	POUNDS	400	0.00	0.00
	MATERIAL	8740	0.00	0.00
	THICKNESS	.00035-.00045	0.00	0.00
	41	CAD PLATE TYPE 11 CL 2 PER AMS-QQ-P-416C	0.00	0.00
		.250-28 UNF-3A R/C 27-32 A/P .249-.246		
	CERT	WE HEREBY CERTIFY THAT THE PROCESSING AND INSPECTION PERFORMED ON PARTS BY THIS PURCHASE ORDER ARE IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS AND CUSTOMER DRAWINGS.	0.00	0.00
	SIGN 1	SIGNED  TOM BRAGANTINO, OWNER	0.00	0.00
		DATE 09/14/2011		

Claims must be made within 5 days of receipt of goods. No returns accepted without our approval.

Total \$0.00

Toll Free: (888) 339-8472
Phone: (310) 325-7620
Fax: (310) 325-9655

Hadd-Co. Inspection Lab.

2420 Amsler Street, Torrance, California 90505
www.Hadd-Co.net E-Mail: haddco@earthlink.net

No. 4913



9/16/2011

TO:

CALIFORNIA SCREW PRODUCTS, INC.
14957 GWENCHRIS CT
PARAMOUNT, CA 90723

DATE :

P.O. NO.:

JOB / LOT NO.:

114917

323300

QUANTITY	PART NUMBER	DESCRIPTION
32	AN4-42A REV. N/A NASM3-20 REV. 2	BOLT MPI PER ASTM E1444-05 NASM6812-2 MAT: 8740 PLATED 32 PC SAMPLE OF 6000 PC LOT

100% INSPECTION
Magnetic _____ Penetrant _____
Qty Rejects _____
NO REJECTS

This is to certify that parts under subject purchase order
have been ☐ Fluorescent Penetrant / ☒ Magnetically Inspected
in accordance with applicable and / or purchase order
requirements.



STEPHANIE GARFIELD LEVEL II

INSPECTOR

Note: Altering of this certification renders it void.

OYN947 0

5556 09/27/11

AN4-42A

TOTAL O/O: 116

WHSE ONHAND: 77

MINIMUM: 0

MAXIMUM: 0

MIAMI BACKORDERS: 116

04/22/11 021401 DSCP FB6043 SPM5A2-11-M-QB78 116 ~~EA~~ EA 04/29/11 7R7EP1 (MILITARY/GOVERNMENT)

116 To Jose C

REM STK XFER 338869 09/09/11 1 021863 M & M AEROSPACE HARD

125

Warehouse 2: Parts Falling below a 6 Month Trend Quantity

Part No.

Description

AN4-42A

BOLT

Quantity UOM

1,320 Pcs

WH-2

BALANCE TO STOCK



CALIFORNIA SCREW PRODUCTS CORPORATION
14957 GWENCHRIS COURT
PARAMOUNT, CALIFORNIA 90723-3423
TEL (562) 633-6626
FAX (562) 633-2082

PACKING SLIP

Original : 28769

Sold To:
003635 B/E AEROSPACE CONSUMABLE MANAGEMENT P.O. BOX 025263 MIAMI, FLA 33102-5263

Ship To:
***** B/E AEROSPACE CONSUMABLE MANAGEMENT 9835 NW 14TH ST. MIAMI, FLA 33172

Customer P.O. No.		Sales Order	Date	Ship Via		Job No.
OYN947 ✓		46954	09-16-11	FED EX GROUND/WATKIN		323300 ✓
Pos	Item	Ordered	Delivered Qty	Unit	Weight	No. of Cartons

10	AN4-42A ✓	5556	5556	ea	363	11

SKORSKY
1758
DQR

MAR 25 2012

Honeywell Source Accepted:
Stamp Impression _____
Date _____ SEP 16 2011
RMRA # _____



MAR 24 2012



Hadd-Co. Inspection Lab.

Toll Free: (888) 339-8472
 Phone: (310) 325-7620
 Fax: (310) 325-9655

2420 Amsler Street, Torrance, California 90505
 www.Hadd-Co.net E-Mail: haddco@earthlink.net

No. 4913



9/16/2011

TO:

CALIFORNIA SCREW PRODUCTS, INC.
 14957 GWENCHRIS CT
 PARAMOUNT, CA 90723

DATE :

P.O. NO.:

JOB / LOT NO.:

114917

323300

QUANTITY	PART NUMBER	DESCRIPTION
32	AN4-42A REV. N/A NASM3-20 REV. 2	BOLT MPI PER ASTM E1444-05 NASM6812-2 MAT: 8740 PLATED 32 PC SAMPLE OF 6000 PC LOT

100% INSPECTION
 Magnetic _____ Penetrant _____
 Qty Rejects _____
NO REJECTS

This is to certify that parts under subject purchase order have been ☐ Fluorescent Penetrant / ☒ Magnetically inspected in accordance with applicable and / or purchase order requirements.

Steph McNeil

STEPHANIE GARFIELD LEVEL II

INSPECTOR



Note: Altering of this certification renders it void.

SIKORSKY
 1758
 DQR

MAR 25 2012



MAR 24 2012



Southwest Plating Company, LLC

1344 W. Slauson Ave.
Los Angeles, CA 90044-2824
Telephone (323) 753 - 3781
Fax (323) 753 - 9472

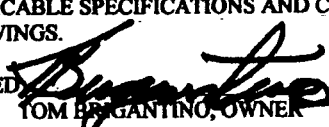

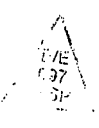
CERTIFICATION

DATE	INVOICE #
9/14/2011	V 127598

BILL TO
CA Screw Products Corp P.O. Box 228 Pamout, Ca. 90723

SHIP TO
CA Screw Products Corp 14957 Gwen Chris Ave. Pamout, Ca. 90723

P.O. NUMBER	TERMS	REP	SHIP	VIA	F.O.B.	PROJECT
114807	Net 30		9/14/2011			

QUANTITY	ITEM CODE	DESCRIPTION	PRICE EACH	AMOUNT
	# OF PIECES	6000	0.00	0.00
	PART NUMBER	AN4-42A REV.N/A NASM3-20 REV.2	0.00	0.00
	PANS	6	0.00	0.00
	JOB NUMBER	323300	0.00	0.00
	POUNDS	400	0.00	0.00
	MATERIAL	8740	0.00	0.00
	THICKNESS	.00035-.00045	0.00	0.00
	41	CAD PLATE TYPE 11 CL 2 PER AMS-QQ-P-416C	0.00	0.00
		.250-28 UNF-3A R/C 27-32 A/P .249-.246		
	CERT	WE HEREBY CERTIFY THAT THE PROCESSING AND INSPECTION PERFORMED ON PARTS BY THIS PURCHASE ORDER ARE IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS AND CUSTOMER DRAWINGS.	0.00	0.00
	SIGN 1	SIGNED  TOM BRAGANTINO, OWNER	0.00	0.00
		DATE 09/14/2011		
		SIKORSKY 1758 DQR MAR 25 2012		
		 MAR 24 2012		
				
Claims must be made within 5 days of receipt of goods. No returns accepted without our approval.			Total	\$0.00

Certification

Tri-J Heat Treating
327 E Commercial St,
Pomona CA 91767
Phone: 909-622-9999 Fax: 909-622-1790

Order No.: 22351

Date: 08/12/2011

Entry Date: 08/10/2011

Page: 1

To: CALIFORNIA SCREW PRODUCTS COR
P.O.Box 228

PARAMOUNT CA 90723

Phone: 562-633-6626

Purchase Order No.: 114041

Job#: 323300

Material: 8740

We are pleased to provide you with the following Certification

Quantity	Part Number / Part Name / Part Description	Pounds
6,000	AN4-42A REV NA, NASM3-20 REV 2	400

Heat Treat AMS 2759 / 1 REV E

Harden to specific hardness

Insp. Type	Scale	Minimum	Maximum	Scale	Minimum	Maximum	Value
Customer Requirements:				Results:			
Hardness	HRC	27.0	32.0	Hardness	HRC	28.0	30.0 6.0

Process Steps

Step: 1 Process: Heat Treat

Treat at 1575 F, Dew point 50, Oil Quench at 130 F.(1 Hr Min)

Step: 2 Process: Temper

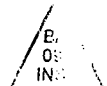
Temper at 1100 F, 1 Hr for each 400 Lbs. MIN 2 HRS

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MAR 25 2012

MAR 24 2012



ISO 9001:2008 REGISTERED


Gary Madrigal
QC Manager
Tri-J Heat Treating



WireTech, Inc.

6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

Cal Screw Products
14967 Gwenshris Ct.
Paramount, CA 90723
USA

WORK ORDER
083494

CERTIFICATION

HEAT NO.
10073780
SALES ORDER / RLS
839640 / 1
ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CERT# 911.01

J/N 323300

CUSTOMER P.O. 111282	CUSTOMER PART h1198	QUANTITY 2,583 Lbs	CARRIERS 2	LADING NO 00090289	SHIPMENT DATE 06/02/2011
SPECIFICATION: C048740-102455A A-8740, AQ, SKFG, CHC WIRE, SAIP Zinc Phosphate, Lime & Stearate Coating, Size: 0.245/0.246 Specifications: AMS2301H, AMS6322N, MIL-S-8049A, AMEND. 1, H1198, AMS-S-6049-A					
CERTIFICATION REQUIREMENTS					
Chemical Properties					
C .41	Si .24	Mn .95	P .014	S .013	Cu .14
Ni .43	Cr .41	Mo .21			
Physical Properties					
Grain Size Jominy 1 6 5=52	Jominy 2 8=44	Jominy 3 10=37	Inclusions Macro S2-R1-C2	Cleanliness F&S=0	Mill Source Charter
Country of Origin USA - DFAR Compliant					SWORSKY 1758 DQR MAR 25 2012
Mechanical Properties					
TEST	UNITS				Results
Tensile Strength	KSI				83.3
Yield Strength	KSI				70.8
% Elongation	%				29
% Reduction of Area	%				71.6
Rockwell Hardness B Scale	HRB (s)				86

MAR 24 2012
 RMIK 8573
 JOSE ERVANTES
 6-3-2011
 DFARS 252.225-7014 ALT. 1 COMPLIANCE

Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47.

REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL.
 Wire Tech, Inc. metallurgical laboratory is accredited in the following tests: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IP 140, inclusion rating per ASTM E 45, decarburization performed as per IP 140. The reported Chemical and Physical Properties are Mill Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by A2LA or covered by Wire Tech, Inc. A2LA accreditation.
 TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.
 "LATEST REVISIONS OF ASTM"

DFAR Material per Clauses 252.225-7014 ALT. 1, 252.225-7009, & 225.003(9)
 Material is free of mercury, radium, or alpha contamination.

OYN947 0

5556 09/27/11

AN4-42A

TOTAL O/O: 116 WHSE ONHAND: 77

MINIMUM: 0 MAXIMUM: 0

MIAMI BACKORDERS: 116

04/22/11 021401 DSCP FB6043 SPMSA2-11-M-QB78 116 ~~EA~~ EA 04/29/11 7R7EP1 (MILITARY/GOVERNMENT)

116 To Jose C

REM STK XFER 338869 09/09/11 1 021863 M & M AEROSPACE HARD

125

Warehouse 2: Parts Falling below a 6 Month Trend Quantity

Part No.

Description

Quantity UOM

AN4-42A

BOLT

1,320 Pcs

WH-2



MAR 24 2012

BALANCE STOCK

MAR 25 2012

SKORSKY
1758
DOR

MANUFACTURERS OF AIRCRAFT FASTENERS AN-MS-NAS
CALIFORNIA SCREW PRODUCTS CORP.

CAGE NUMBER : 14957 GWENCHRIS COURT
 Airbus UK Approval No. AUK/BA/30144

PARAMOUNT, CALIF. 90723-3423

Job Number : 323300
 BULK/AG/30235 / MAA

TEST REPORT

Part Number : AN4-42A
 Customer : B/E-AEROSPACE CONSUMABLE MANAGEMENT
 Procurement Spec. : NASM6812 REV. 2
 Surface Finish Spec : AMS-QQ-P-416 REV. C
 Heat Treat Spec : AMS2759/1 REV. B
 Mgmt Permeability : N/A

Part Standard : NASM3-20 REV. 2
 Cust. Purchase Order Number : OYN947
 Thread Size & Form : .250-28 UNF-3A
 Thread Spec : M21-B-7742 REV. D
 Sample Size Spec. : NASM6812 REV. 2

Shipped Quantity* : 5556
 Mfg Quantity : 6000
 Matl Spec : AMS 6322 REV. N
 Item Description : Bolt
 Heat Number : 10073780

* Actual piece count is within +/- 2% of the shown lot quantity.

*** CONFORMS TO REQUIREMENTS OF AMS THRU AMS REV.12
 NON-DESTRUCTIVE TESTS / SUBCONTRACTED (SEE CERTIFICATION)**

Sample Size : 32 specimens Inspection Results : Accept : 32 Reject : 0 specimens
 Magnetic Particle : ASTM E1444-05 Fluorescent Penet. : N/A

METALLURGICAL EXAMINATION RESULTS

Sample Size : 5 specimens Accept : 5 Reject : 0 Lab Mount No. : 41324
 GRAIN SIZE : N/A HEAD STRUCTURE : Accept LAPS : Accept MICRO STRUCTURE : Accept
 PILLET COLD WORKED : Accept DECARB : Accept SEAMS : Accept CARBURIZED : Accept
 GRAIN FLOW HEAD : Accept GRAIN FLOW THREAD : Accept CRACKS : Accept THREAD RUN OUT : Accept

MECHANICAL TESTS RESULTS

ULTIMATE TENSILE STRENGTH (lbs.) - Loc. of Failure: Threads Minimum Req. : 4080
 Sample Size : 5 specimens Accept : 5 Reject : 0 Maximum Req. : 0

1. 5516	2. 5699	3. 5494	4. 5614	5. 5495	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

SHEAR (lbs.) S/D : SINGLE Sample Size : 5 specimens Accept : 5 Reject : 0 Minimum Req. : 3680

1. 4606	2. 4316	3. 4403	4. 4376	5. 4419	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

HARDNESS TEST Sample Size : 8 Hardness Req. RC : 26-32 Hardness Results : 28-30

STRESS RUPTURE TEST - N/A Load (Lbs.) : 0 Temperature (F) : 0 Periodic test, REF Job No.
 Sample Size : 0 Hours : 0

FATIGUE TEST - N/A Cycles : 0 Min Req. : 0
 Sample Size : 0 Low Load (lbs.) : 0 High Load (lbs.) : 0

TORQUE TEST - N/A Sample Size : 0 Load (Lbs/in) : 0

STRESS DURABILITY TEST - N/A Sample Size : 0 LOAD (Lbs.) : 0 Hours : 0

STATEMENT OF CONFORMANCE:

This report-relates only to items inspected/tested. Deviations from standard test methods, if any, are noted, and results from subcontracted inspection or testing, if any, are identified. All items were manufactured in the USA under a quality management system, which complies with ISO 9001 and with AS 9100. CALIFORNIA SCREW PRODUCTS CORP. hereby states: That the above product is mercury free; that the above listed lot has been produced, sampled, tested, inspected and marked in accordance with all requirements and that the product complies with all specification and contract requirements; that evidence of which is in the files of our company subject to examination. This report shall not be reproduced except in full, unless authorized in writing by CALIFORNIA SCREW PRODUCTS CORPORATION.

Honeywell Source Accepted:

Stamp Impression

Date

SEP 16 2011

RMRA.#

FINAL INSPECTOR

SEP 16 2011

(Name, Signature, Stamp and Date)

MARIAELENA
 TORRES

SKORSKY
 1758
 MAR 2 5 2012

SPARE 252-225-7014 ALT. 1
 COMPLIANCE

MAR 24 2012

B/E
 097
 INSP



CHARTER STEEL

A Division of
Charter Manufacturing Company, Inc.

EMAIL

1658 Cold Springs Road
Saukville, Wisconsin 53080

(262) 268-2400

1-800-437-8789

FAX (262) 268-2570

CHARTER STEEL TEST REPORT

Reverse Has Text And Codes

Wiretech Incorporated
6440 East Canning Street
Los Angeles, CA-90040
Kind Attn : Cert To Contact

J/N 323300

Customer P.O.	6513-3
Customer Part #	8740C1A080-C-R
Charter Sales Order	70011147
Heat #	10073780
Ship Lot #	4026728
Grade	✓ 8740 R SK FG AQ 21/64
Process	HRSA
Finish Size	21/64

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Lab Code: 7388
CHEM
%Wt

Test Results of Heat Lot# 10073780											
C	MN	P	S	SI	NI	CR	MO	CU	SN	V	
.41	.95	.014	.013	.24	.43	.41	.21	.14	.008	.001	
AL	N	B	TI	NB							
.027	.0070	.0001	.002	.002							

JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM11	JOM12
	57	57	58	55	52	51	47	44	39	37	37	35
	JOM13	JOM14	JOM15	JOM16	JOM18	JOM20	JOM22	JOM24	JOM26	JOM28	JOM30	JOM32
	35	34	33	32	31	31	30	29	29	29	29	28

JOMINY SAMPLE TYPE ENGLISH = B JOMINY LAB = 0358-01
MACRO ETCH SURFACE = 1 MACRO ETCH RANDOM = 1 MACRO ETCH CENTER = 1
AMS 2301 FREQUENCY AVERAGE = .03 AMS 2301 FREQUENCY INDIVIDUAL = .06
AMS 2301 SEVERITY AVERAGE = .02 AMS 2301 SEVERITY INDIVIDUAL = .03
CHEM. DEVIATION EXT. - GREEN =

SKOP SKY
1758
DOR

MAR 25 2012

REDUCTION RATIO = 358:1

Test Results of Rolling Lot# 1013507

	# of Tests	Min Value	Max Value	Mean Value	
TENSILE	20	83.9	83.9	83.9	TENSILE LAB = 0358-02
REDUCTION OF AREA	2	63	66	65	RA LAB = 0358-02
ROCKWELL B	2	80	81	81	RB LAB = 0358-02

NUM DECARB = 3 FREE FERRITE DECARB = .000 FREE FERR & PARTIAL DECARB = .001
CP SPHERO % LAB = 0358-02 NUM SPHERO = 3 SPHERODIZATION = 83.3

Specifications:

Manufactured per Charter Steel Quality Manual Rev 9.08-01-08
Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = COP 3010 Revision = M Dated = 12-MAR-03

Additional Comments:

MEETS REQUIREMENTS OF SPECIFICATIONS AMS4322N/AMS2301J/MIL-S-8849A

RIE
122
INSP
MAR 24 2012



Handwritten: 8573, ERVANTE, 6.3.2011
DRAWS 281228-7814 ALT. 1 COMPLIANCE

Charter Steel
Saukville, WI, USA



Handwritten: Janice Barnard
Janice Barnard
Manager of Quality Assurance
07/15/2010

Rem: Load1,Fax0,Mail0

J/N 323300

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Possible Laboratory	Specification
Chemistry Analysis	CSSM, CSCM/CSCR	ASTM E415; ASTM E1019
X-ray Fluorescence Stainless and Alloy Steel	CSCM/CSCR	ASTM E572
Macroetch	CSSM, CSCM/CSCR	ASTM E381
Hardenability (Jominy)	CSSM, CSCM/CSCR	ASTM A255; SAE J406; JIS G0561
Grain Size	CSSM	ASTM E112
Tensile Test	CSSR/CSSP, CSFP, CSCM/CSCR	ASTM E8; ASTM A370
Rockwell Hardness	All labs	ASTM E18; ASTM A370
Microstructure (spheroidization)	CSSR/CSSP, CSFP	ASTM A892
Inclusion Content (Methods A, E)	CSSR/CSSP, CSCM/CSCR	ASTM E45

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/11.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers
 - Both sides of all pages must be reproduced in full
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.



8573
 Jose ERVANTES
 6-3-2011
 DEFA 152-226-7014 ALT. 1 COMPLIANCE



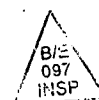
B/E AEROSPACE

Part Number: AN4 - 42A				Description: BOLT - MACHINE, AIRCRAFT			Detailed Inspection Plan		Part Number: AN4 - 42A
B/E Ctrl #		2011121040 ✓				Caliper: 0639151			
B/E PO #		0YN947 ✓				Micrometer: 609			
Receiving date		9/29/2011 ✓				Johnson Gage: 22098, 22141			
Supplier		California Screw ✓				Pitch Rolls: Ber046			
Mfg		California Screw ✓				Func/Seg: DKC			
Mfg Lot #		323300 ✓				Set Plug: 517			
Mill House		Charter Steel ✓				Mag Indicator: 485			
Heat #		10073780 ✓				Optical Comp: 110109			
Supplier Lot Quantity		73							
Sample Size		20 / 11							
Date		3/24/2012							
Customer		Sikorsky Aircraft							
Customer PO									
Seq #	Drawing Revision: NASM 3 Thru NASM20 Rev 2 ✓	Inspection Method	Inspection Results	Acc	Rej	Notes			
1	Marking:	Visual	C X S ✓	73	0				
2	Visual	Visual	Conforms ✓	73	0				
3	Residual Mag Check	Mag. Ind.	< 1 Gauss ✓	11	0				
4	Thread T Func Dia 1/4-28 UNF-3A	Johnson Gage	.2253 - .2256 ✓	20	0				
5	Thread T Pitch Dia .2243 - .2268	Johnson Gage	.2252 - .2254 ✓	20	0				
6	Major Dia .2435 - .2500	Micrometer	.2452 - .2457 ✓	20	0				
7	A .246 - .249	Micrometer	.246 - .247 ✓	20	0				
8	B .428 - .440	Caliper	.431 - .436 ✓	20	0				
9	C .510 (REF)	Caliper	.499 - .501 ✓	20	0				
10	D .140 - .172	Caliper	.164 - .167 ✓	20	0				
11	E 5/16	N/A	N/A	-	-				
12	F .047/.015	Optical Comparator	.027 - .035 ✓	20	0				
13	H .398 Min.	Optical Comparator	.400 - .404 ✓	20	0				
14	J .070 +.010/-0	N/A	N/A	-	-				
15	K .046 +.010/-0	N/A	N/A	-	-				
16	Length 4-9/32 (4.2812) + 1/32 / - 1/64	Caliper	4.287 - 4.290 ✓	20	0				
17	Grip 3-13/16 (3.8125) ± 1/64	Optical Comparator	3.8109 - 3.8120 ✓	20	0				
18	.010 ± .005 Radius	Optical Comparator	.011 - .014 R	20	0				
19	Grip Nom + E Nom ± 1/64	N/A	N/A	-	-				
20	Hole Centerline w/in .010	N/A	N/A	-	-				
21	Hole normal to CL w/in 2°	N/A	N/A	-	-				
22	30° ± 5°	Optical Comparator	29° 58' 30°	20					
23	15° ± 5°	N/A	N/A	-	-				
24	D/2	N/A	N/A	-	-				
25	.016 ± .010	Optical Comparator	.016 - .018	20	0				
26	Marking height or depth	Mold/Optical Comp	.012 - .013	20	0				
27	Material: Non -Corrosion Resistant Steel 8740 Per AMS 6322 ✓	Cert	WireTech Inc Heat # 10073780 ✓	73	0				
28	Finish: Cadmium Plate per AMS-QQ-P-416 TYII CL 2 ✓	Cert	Southwest Plating Company Cert # 127598 ✓	73	0				
29	Proc. Spec: NASM6812 ✓	Cert	California Screw Job # 323300 ✓	73	0				
30	Free from burrs/slivers	Visual	Conforms	73	0				
31	Note (6) Dimension are in inches.....	Visual	Conforms	73	0				
32	Ultimate Tensile Strength 4,080	Cert	California Screw Job # 323300 ✓	73	0				
33	Yield Strength 3,130	Cert	California Screw Job # 323300 ✓	73	0				
34	Single Shear 3,680	Cert	California Screw Job # 323300 ✓	73	0				
35	45° ± 5°	Optical Comparator	44° 45' 45°	20	0				
36	Note (7) Dimension apply after finish	Informational	Noted	73	0				
Inspector: Woodrow McDowell				73	0				

3/25/2012

Page 1

5:44 AM



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MAR 25 2012

B/E AEROSPACE

Detailed Inspection Plan

Part Number: AN4 - 42A

Description: BOLT - MACHINE, AIRCRAFT

2011121040

Part Number: AN4 - 42A

Seq #	Drawing Revision: NASM 3 Thru NASM20 Rev	Inspection Method	Inspection Results	Acc	Rej	Notes
37	Note (8) This standard takes precedence...	Informational	Noted	73	0	
38	Note (9) Referenced documents shall be...	Informational	Noted	73	0	
39	Note (10) Unless otherwise specified....	Informational	Noted	73	0	
40	Visual For FOD	Visual	Compliant	73	0	
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Inspector: Woodrow McDowell						
Quality Accept/Reject				73	0	

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DOB

MAR 25 2012



SAE AS9102 Revision A

Form 1 : Part Number Accountability Sheet 1 of 4

[illegible]

1. Part Number AN4-42A	2. Part Name BOLT - MACHINE, AIRCRAFT	3. Serial Number N/A	4. FAI Report Number Ctrl # 2011I21040
5. Part Revision Level 2	6. Drawing Number NASM3 THRU NASM20	7. Drawing revision level 2	8. Additional Changes N/A
9. Manufacturing Process Reference Lot # 323300	10. Organization Name B/E AEROSPACE	11. Supplier Code 65774	12. P.O. Number & Line Item
13. Detail FAI <input checked="" type="checkbox"/> Assembly FAI <input type="checkbox"/>	14. Full FAI X Partial FAI Baseline Part Number including revision level Reason for partial FAI:		

a) if above part number is a detail part only, go to Field 19
b) if above part number is an assembly, go to the : "INDEX" section below.

INDEX of part number or sub-assembly number required to make the assembly noted above.

[illegible]

1) Signature indicates that all characteristics are accounted for: meet drawing requirements or are properly documented for disposition.

2) Also indicate is the FAI is complete per Section 5 ☒ AI complete ☐ not Complete

19. Signature : Narender Verma	20. Date	3/24/2012
--------------------------------	----------	-----------

21. Reviewed by	SIKORSKY	22. Date	
-----------------	----------	----------	--

23. Customer Approval	1758	24. Date	
-----------------------	------	----------	--

1758

MAR 25 2012

3/24/2012

24. Date

24. Date

Form 3: Characteristic Accountability, Verification and Compatibility Evaluation							Sheet 3 of 4		
1. Part Number			2. Part Name			3. Serial Number	4. FAI Report		
AN4-42A			BOLT - MACHINE, AIRCRAFT			N/A	Ctrl # 2011121040		
Characteristic Accountability			Inspection / Test Results						
5. Char No.	6. Reference Location	7. Characteristic Designator	8. Requirement	9. Results	10. Designed Tooling	11. Non-Conformance Number	14a. FAI Inspection Measuring Equipment	14b. Production Inspection Measuring Equipment	14c. FAI Inspector Identification
1	Sh.1	Minor	Marking	C X S	N/A	N/A	Visual	Visual	122
2	Sh.1	Minor	Visual	Conforms	N/A	N/A	Visual	Visual	122
3	Sh.1	Minor	Residual Mag Check	< 1 Gauss	N/A	N/A	Mag. Indicator	Mag. Indicator	122
4	Sh.1	Minor	T Functional: (1/4 - 2B UNF-3A) Dia .2243 - .2268	0.2252	N/A	N/A	Johnson Gage	Johnson Gage	122
5	Sh.1	Minor	T Pitch Dia .2243 - .2268	0.2249	N/A	N/A	Johnson Gage	Johnson Gage	122
6	Sh.1	Minor	Major Dia .2435 - .2500	0.246	N/A	N/A	Micrometer	Micrometer	122
7	Sh.1	Minor	A .246 - .249	0.248	N/A	N/A	Micrometer	Micrometer	122
8	Sh.1	Minor	B .428 - .440	0.434	N/A	N/A	Caliper	Caliper	122
9	Sh.1	Minor	(C) .510 REF.	0.495	N/A	N/A	Caliper	Caliper	122
10	Sh.1	Minor	D .140 - .172	0.166	N/A	N/A	Caliper	Caliper	122
11	Sh.1	Minor	(E) 5/16 (.3125)	N/A	N/A	N/A	N/A	N/A	122
12	Sh.1	Minor	F .015 - .047	0.039	N/A	N/A	Opt. Comp.	Opt. Comp.	122
13	Sh.1	Minor	/3/ H .398 Min	0.418	N/A	N/A	Opt. Comp.	Opt. Comp.	122
14	Sh.1	Minor	J .076 +.010/- .000	N/A	N/A	N/A	N/A	N/A	122
15	Sh.1	Minor	K .046 +.010/- .000	N/A	N/A	N/A	N/A	N/A	122
16	Sh.1	Minor	Length 4.9/32 (4.28125) +1/32 (.03125), - 1/64 (.0156)	4.2915	N/A	N/A	Caliper	Caliper	122
17	Sh.1	Minor	/2/ Grip: 3-13/16 (3.8125) ± 1/64 (.01562)	3.8117	N/A	N/A	Opt. Comp.	Opt. Comp.	122
18	Sh.1	Minor	.010 ± .005 Radius	.015 R	N/A	N/A	Opt. Comp.	Opt. Comp.	122
19	Sh.1	Minor	Grip + E +/- 1/64	N/A	N/A	N/A	N/A	N/A	122
20	Sh.1	Minor	Hole Centerline w/in .010.	N/A	N/A	N/A	N/A	N/A	122
21	Sh.1	Minor	/1/ Hole normal to CL w/in 2 Deg	N/A	N/A	N/A	N/A	N/A	122
22	Sh.1	Minor	30° ± 5° Degrees	29°32'	N/A	N/A	Opt. Comp.	Opt. Comp.	122
23	Sh.1	Minor	15° ± 5° Degrees (Optional)	N/A	N/A	N/A	N/A	N/A	122
24	Sh.1	Minor	D/2	N/A	N/A	N/A	N/A	N/A	122
25	Sh.1	Minor	.016 ± .010	0.017	N/A	N/A	Opt. Comp.	Opt. Comp.	122
26	Sh.2	Minor	Marking may be raised or depressed: .025 inch for 9/16 Dia Bolt & smaller, .030 inch for 5/8 Dia Bolts & larger.	.011 (Raised)	N/A	N/A	Opt. Comp.	Opt. Comp.	122
27	Sh.1	Minor	Material: 8740 Steel per AMS 6322 (Procurement: NASM6812)	WireTech Inc. Heat # 10073780.	N/A	N/A	Cert	Cert	122
28	Sh.1	Minor	Finish: Cadmium Plating per QQ-P-416 Superseded by AMS-QQ-P-416. (Procurement NASM6812)	Southwest Plating Company, Cert. # 127598.	N/A	N/A	Cert	Cert	122
29	Sh.1	Minor	Proc. Spec: Mil-B-6812 / NASM6812.	California Screw Job # 323300.	N/A	N/A	Cert	Cert	122
30	Sh.2	Minor	(5) Bolts free from Burrs etc. & Countersinking of Drilled Holes is optional.	Noted	N/A	N/A	Informational	Informational	122

The signature indicates that all characteristics are accounted for; meet drawing requirements and are properly documented for disposition.

22. Prepared By **Narinder Verma** Date: **3/24/2012**

SKORSKY 1758
MAR 25 2012

Form 3: Characteristic Accountability, Verification and Compatibility Evaluation

Sheet 4 of 4

1. Part Number				2. Part Name			3. Serial Number	4. FAI Report	
AN4-42A				BOLT - MACHINE, AIRCRAFT			N/A	Ctrl # 2011121040	
Characteristic Accountability				Inspection / Test Results					
5. Char No.	6. Reference Location	7. Characteristic Designator	8. Requirement	9. Results	10. Designed Tooling	11. Non-Conformance Number	14a. FAI Inspection Measuring Equipment	14b. Production Inspection Measuring Equipment	14c. FAI Inspector Identification
31	Sh.3	Minor	(6) Dimensions are in inches. UOS Tolerances: Decimals $\pm .010$, Angles $\pm 5^\circ$.	Noted	N/A	N/A	Informational	Informational	122
32	Sh.3	Minor	Ultimate Tensile Strength:2210	California Screw, Job # 323300.	N/A	N/A	Cert	Cert	122
33	Sh.3	Minor	Yield Strength:1690	California Screw, Job # 323300.	N/A	N/A	Cert	Cert	122
34	Sh.3	Minor	Single Shear:2125	California Screw, Job # 323300.	N/A	N/A	Cert	Cert	122
35	Sh.1	Minor	$45^\circ \pm 5^\circ$	45°	N/A	N/A	Opt. Comp.	Opt. Comp.	122
36	Sh.3	Minor	(7) Dimensions apply after Finish UOS.	Noted	N/A	N/A	Informational	Informational	122
37	Sh.3	Minor	(8) This standard takes precedence..	Noted	N/A	N/A	Informational	Informational	122
38	Sh.3	Minor	(9) Referenced documents shall be issue..	Noted	N/A	N/A	Informational	Informational	122
39	Sh.3	Minor	UOS part inventory manufactured to previous Rev...	Noted	N/A	N/A	Informational	Informational	122
40	Sh.1	Minor	Visual for FOD	Conforms	N/A	N/A	Visual	Visual	122
41									
42									
43									
44									
45									
46									
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58									
59									
60									
61									
62									

The signature indicates that all characteristics are accounted for, meet drawing requirements or are properly documented for disposition.

12. Prepared By Narneder Verma

Date:

3/24/2012

SAE AS9102 Revision A

SECRET
1758

MAR 25 2012



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LIN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
15	1000	EA	NAS1149D0663J		X5364	ANILLO INDUSTRIES	10630		


Jason Lewis
Vice President of Quality

04/09/14

Inv # 04/09/14

ANILLO Industries, Inc.

2090 NORTH GLASSELL STREET, ORANGE, CA 92865-3391 USA
PLEASE REMIT TO
P.O. BOX 5586 ORANGE, CA 92863-5586 USA
(714)837-7000 (562)924-6632 FAX(714) 637-3022



547828

Packing List & Certification

WE ACCEPT
VISA/MASTER/DISCOVER/AMEX

SOLD TO B/E AEROSPACE, INC. ATTN: ACCOUNTS PAYABLE DEPT. P.O. BOX 025263 MIAMI, FL 33102-5263	1165	SHIP TO B/E AEROSPACE, INC. CONSUMABLES MANAGEMENT 9835 NW 14TH ST MIAMI, FL 33172	E
--	-------------	---	----------


DATE ORDER REC'D 12/19/2011	ORDER NUMBER 1A1294	INVOICE DATE	SHIPPED VIA FEDXG 033101490	TERMS 1% 10 DAYS, NET 30
ITEM	ORDERED	SHIPPED	DESCRIPTION	NET WEIGHT

1	337,940	75.000	NAS1149D0663J REV 5 / LOT#X6364 / MIN/MAX / QCR:1,4,6,8,15,16 / AN960JD616 ECCN: 9A991 Schedule B#: 7616.10.8000 COO: US NLR	
---	---------	---------------	---	--

We certify that: 1. item number 1 above is manufactured in accordance with the material and processing specifications of this order.
2. We certify that the material on this order conforms in all respects to the current applicable government and/or manufacturer's specification. Test reports are on file and are available for examination on all Anillo manufactured parts. All claims for errors or shortages must be made within 10 days after receipt of goods.
No good to be returned without written authorization. All claims for defective material must filed within 30 days of shipment to receive consideration. We do not assume financial responsibility or liability from the use of products sold, other than the replacement value of the products sold, if claimed within the specified time limit above.

<< R.M.A.# REQUIRED FOR RETURNS >>

Certification

B/E Aerospace, Inc. - Consumables Management	
Self Release	
Signature and Stamp:	
Date:	07-17-13

BY Ben Omidwar
Ben Omidwar, Quality Assurance Manager

FI 4.03.05

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

Ship From: RIVERDALE, IA.

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

Rob Woodall

Rob Woodall
Director of Manufacturing Davenport Works

Terrence Thom
Terrence Thom
Quality Assurance Manager

1400519	0			
Ship Date	B.L. No.	Invoice No.	Alcoa No.	Item
2012-07-05	7161511	00000	1000355792-1	DP-55792-1
P.O. No./Govt Contract No.	Customer	Alcoa Item		
TV8100 Lot# 01	BOEING-TMX	G041003529R07		

TX5012

Page 1 of 2

833839

Ship To: THE BOEING COMPANY
TMX AEROSPACE DIVISION
12821 CARMENITA ROAD
UNIT F
SANTA FE SPRINGS 90670 CA

Item Description
0.063 IN TK (+.0030 -.0030) X 48.0 IN W (+.046875 -.046875) CAT X 895699-
7 (N) A/T ALCLAD 2024-T3 COILED SHEET MILL FINISH ~~895699-2~~ AMS-QQ-A-
250/5 REV A IS 2010 AS9103 D6-82479 REV F
(MARKED) LIGHTLY OILED COIL SIZES: ID
20 IN OD MAX 48 IN MAX GROSS SKID WGT: 7500 LB QUAN TOL +/-
30 % CQR 0108580 REV 12 CUST REQ 12-01-
12 *** W/E 12-07-21 ***

Num	Package Ticket	Lot	Weight	Quantity	COM	Inspector Clock Numbers
1	426473	499411	5671	1	PC	27619 47135

Notes for CQR: 0108580.12

PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/5 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/5F, AMENDM ENT 2.
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/5F, AMENDMENT 2 ALSO MEETS THE REQUIREMENTS OF AM S-QQ-A-250/5.

CQR: 0108580.12 -Specification Limits

Impr	Eir	UTS	TYS	ELAD
		KSI	KSI	PCT
T3	Long Transv.	Max		
		Min	61.0	40.0 15

Chemical Composition		Other Other										
		SI	FE	CU	MN	MG	CR	ZN	TI	Each	Total	Aluminum
Alloy 2024	Max	0.50	0.50	4.9	0.9	1.8	0.10	0.25	0.15	0.05	0.15	
	Min			3.8	0.10	1.2						REMAIN

Chemical Composition		Other									
		CU	MN	MG	V	ZN	TI	FE-SI	Each	Aluminum	
LINER	Max	0.10	0.05	0.05	0.05	0.10	0.03	0.70	0.03		
Alloy 1230	Min									99.30	

AN960JD616

07-17-13
LA\$114900663J
X5364

[Signature]

CERTIFIED INSPECTION REPORT

Alcoa Inc.



DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

Ship From: RIVERDALE, IA,

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

Per:

Rob Woodall

Rob Woodall
Director of Manufacturing Davenport Works

Terrance Thom

Terrance Thom
Quality Assurance Manager

1400519 Ship Date	0 B.L. No.	Invoice No.	Alcoa No.	Item
2012-07-05	7161511	00000	1000355792-1	DP-55792-1
P.O. No./Govt Contract No.		Customer	Alcoa Item	
TV8100 Ln#: 01		BOEING-TMX	G041003529R07	

Page 2 of 2

CQR: 0108580.12 -Specification Limits (cont.)
Lot: 499411 - Mechanical, Physical, Metallography, Quantometer Results

	No.	UTS	TYS	EL4D
Temp Dir	Test	KSI	KSI	PCT
T3 Long Transv.	2	63	44	17.5
		63.6	43.6	17.8

Cast Number	Chemical - OES	SI	FE	CU	MN	MG	CR	ZN	TI
H9603056	Actuals	0.05	0.14	4.6	0.65	1.5	0.00	0.09	0.03

This material was melted in the United States or a Qualifying Country [REF DFARS 225.872.1(a)]; it was manufactured in the United States

AN960JD616

07-17-13
NA 1149 D0663J
XS364

Signature:
Title:

[Signature]

Certification

ANILLO INDUSTRIES, INC.
2090 North Glassell st.
Orange, CA. 92865-3391
(714) 637-9110

*This is to certify that the below listed parts were processed per the applicable specification listed below.
Test reports and procedures governing this process are on file and subject to examination.*

CHEMICAL FILM MIL-DTL-5541

Type	Class	Thickness	Revision
I	3		F

Job Number: **X5364**

P/N REV.: **5**

Quantity: **100,000**

Visual: **Y**

Part Number: **NAS1149 D 0663 J**

Adhesion: **N**

Description: **AN760JD616**

Date: **07/12/13**

Authorized by: **MARIBEL CUEVAS**

Stamp:



FORM # 4.09.117 REV A 05/19/09



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
14	250	EA	MS24693-C48		48701	NORTH EAST FASTENERS	072N5		


Jason Lewis
Vice President of Quality

04/09/14

Inv # 04/09/14

North East Fasteners Cor

8 Tremco Dr. - P.O. Box 322

Terryville, CT 06786

Phone: (860)-589-3242

Fax: (860) 589-6969

Web: <http://www.nef1.com>E-Mail: nef@nef1.com**NORTH EAST FASTENERS
CORPORATION**

Invoice	
Date	Invoice No.
09/23/2013	52455

Packing Slip

Sold To: B/E Aerospace Consumables Management
10000 NW 15th Terr
Miami, Florida 33172

Ship To: B/E Aerospace Consumables Manage
9835 NW 14th St
Miami, Florida 33172

Customer:**PO#: 0MZL58****Shipments : 1****Ship Via:** Fed Ex Freight Economy**Boxes****Weight**

19

675 Lbs

Description	Complete	Lot#	Qty.	Price	Ext. Price
8-32 x 3/8" Phillips Flat 100° Marked With One Dash MS (2A) 302HQ Stainless DFARS Compliant Passivate SAE-AMS2700E Method 1 Type 6 Class 4 - MS24693-C48 - 3	Yes	48701	338.8 M		
Subtotal :					
Shipping :					
Total :					

Made in USA

NEF requires receipt of a Customer Debit Memo prior to issuing any credits. Please reference your P/O #, Invoice # and our RMA # on the Debit Memo.

Government Cage Code: 07ZN5**QSLM Level 2/3**

ISO9001:2008 & AS9100



QSLM Level 2/3
Cage code: 07ZN5



NORTH EAST FASTENERS
CORPORATION

Telephone:
(860) 589-3242

Fax:
(860) 589-6969

Web-Site: www.NEF1.com
E-mail: nef@NEF1.com

CERTIFICATE OF CONFORMANCE

This certifies that these fasteners are in conformance to the specifications required for this order and that these fasteners sold by North East Fasteners Corporation were manufactured at 8 Tremco Dr., Terryville, CT 06786 U.S.A.

Customer Order Information

Name : B/E Aerospace Consumables Management

Ship Date: 09/23/2013

NEF Part #: 8320.3750PF1DMSDSSP164

P.O. #: 0MZL58-1

Heat #: 8800

Qty Shipped: 338.800 m

Lot #: 48701

Descr: 8-32 x 3/8" Phillips Flat 100° Marked With One Dash MS (2A) 302HQ
Stainless DFARS Compliant Passivate SAE-AMS2700E Method 1 Type 6
Class 4
DFARS PER: 252.225-7014 ALT :

Specifications

IFI

ISO

Customer Print

DIN

Metric IFI

JIS

Other Specifications

DFARS CERT-252.225-7009

Print # : NASM24693-C48 REV 3

Part # : MS24693-C48 REV 3

Desc :

Dual :

Passed Magnetic Permeability,


Richard L. Allen



* This product has been mfg. in an environment free from contamination by Mercury or any of its compounds.

AS9100/ISO 9001-2008

QSLM Level 2/3

CAGE Code: 07ZN5

website: www.nef1.com



8261 Cornell Road.
Suite 620
Cincinnati, OH 45249
Ph: 800-999-2600
Fax: 513-755-9603

TEST CERTIFICATE

Bill To:
NORTH EAST FASTENERS CORP.
P.O. BOX 322
TERRYVILLE, CT 06786

Ship To:
NORTH EAST FASTENERS CORP.
8 TREMCO DRIVE
TERRYVILLE, CT 06786

Customer PO#: 072313

Customer Part #:

Invoice Date: 7/26/2013	CMC SO: 24235	Ordered: 2,210
Invoice: 18652	Line: 12	Shipped: See Tags
	Item: 3021400HQN.M.CTD	
Item Desc: .1400 DIA 302HQ SS WIRE X	SPECS	ASTM A-493/05, ISO A3506-A2, QQ
Certification Nbr: RMI/SS/4574		S-763F, SAE AIR4127

MATERIAL TEST RESULTS

Heat: 8800

Chemical Composition %

	<u>C</u>	<u>MN</u>	<u>P</u>	<u>S</u>	<u>SI</u>	<u>CR</u>	<u>NI</u>	<u>CU</u>	<u>MO</u>	<u>N</u>
Actual:	0.015	0.6980	0.029	0.001	0.488	17.324	9.384	3.094	0.000	0.000

Mechanical Properties

<u>Tensile Strength (KSI):</u>	<u>Country of Origin (Melt)</u>	<u>Alt Heat Number</u>	<u>DFAR Compliant (Y/N)</u>
76.84	FRANCE	235016	YES
			252.225-7009

Tag: 27195 S 24235 2,210 lb
Total Weight: 2,210 lb

072413 PA

Material Test Results and Specifications are provided to
Cincinnati Metals Company by the issuing mill.

John Cooper, QC

C E R T I F I C A T I O N

KCM INC.
400 MIDDLE ST.
MIDDLETOWN, CT.
06457

PHONE 860-613-2647
FAX 860-613-2964

N.E.F.

DATE:9-18-13

SHOP ORDER NUMBER

DATE REC:9-16-13

P.O. NUMBER:18465

QUANTITY

PART NUMBER

PART NAME/DESCRIPTION

236#

8-32X3/8

7 PANS LOT 48701

MS24693 C48 3

MATERIAL: S.S.

TREATMENT: CLEAN, PASSIVATE SAE AMS2700E METHOD 1 TYPE 6 CLASS 4

IT IS HEREBY CERTIFIED THAT ALL ARTICLES IN THE QUANTITIES AS CALLED FOR IN YOUR PURCHASE ORDER WERE PROCESSED IN CONFORMANCE WITH REQUIREMENTS, SPECIFICATIONS AND DRAWINGS LISTED ON THAT ORDER.

INSPECTOR

[Handwritten Signature]

C E R T I F I C A T I O N

KCM INC.
400 MIDDLE ST.
MIDDLETOWN, CT.
06457

PHONE 860-613-2647
FAX 860-613-2964

N.E.F.

DATE:9-23-13

SHOP ORDER NUMBER

DATE REC:9-18-13

P.O. NUMBER:18515

QUANTITY

PART NUMBER

PART NAME/DESCRIPTION

188#

8-32X3/8

5 PANS LOT 48701

MS24693 C48 3

MATERIAL: S.S.

TREATMENT: CLEAN, PASSIVATE SAE AMS2700E METHOD 1 TYPE 6 CLASS 4

IT IS HEREBY CERTIFIED THAT ALL ARTICLES IN THE QUANTITIES AS CALLED FOR IN YOUR PURCHASE ORDER WERE PROCESSED IN CONFORMANCE WITH REQUIREMENTS, SPECIFICATIONS AND DRAWINGS LISTED ON THAT ORDER.

INSPECTOR



C E R T I F I C A T I O N

KCM INC.
400 MIDDLE ST.
MIDDLETOWN, CT.
06457

PHONE 860-613-2647
FAX 860-613-2964

N.E.F.

DATE: 9-23-13

SHOP ORDER NUMBER

DATE REC: 9-18-13

P.O. NUMBER: 18495

QUANTITY

PART NUMBER

PART NAME/DESCRIPTION

254#

8-32X3/8

7 PANS LOT 48701

MS24693 C48 3

MATERIAL: S.S.

TREATMENT: CLEAN, PASSIVATE SAE AMS2700E METHOD 1 TYPE 6 CLASS 4

IT IS HEREBY CERTIFIED THAT ALL ARTICLES IN THE QUANTITIES AS CALLED FOR IN YOUR PURCHASE ORDER WERE PROCESSED IN CONFORMANCE WITH REQUIREMENTS, SPECIFICATIONS AND DRAWINGS LISTED ON THAT ORDER.

INSPECTOR





QSLM Level 2/3
Cage code: 07ZN5



NORTH EAST FASTENERS
C O R P O R A T I O N

Telephone:
(860)-589-3242
Fax:
(860)-589-6969
Website: www.nefl.com
e-mail: nef@nefl.com

PO Number: 0MZL58-1

Lot Number: 48701

Heat Number: RX8800

Specs: NASM24693

Description: 8-32 x 3/8" Phillips Flat 100° Marked With One Dash MS (2A) 302HQ Stainless DFARS Compliant
Passivate SAE-AMS2700E Method 1 Type 6 Class 4

Date: 09/16/2013

Lot Size: 550.00

Axial Tensile Results

Requirements : 1120 Lbs Min

Sample	Ultimate Tensile Strength (Lbs)
1	1471
2	1483
3	1475
4	1482
5	1481
6	1476
7	1477
8	1482

Joe Longo

Quality Control Manager



All tests listed on this certification have been performed in accordance with the required specifications named above. Calibrations are in accordance with ISO10012-1. The analysis reported on this certification is in accordance with North East Fasteners Quality Manual guidelines and methods.



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
11	125	EA	MS20615-4M18		251704 P001 F001	ARG ATELIERS HAUTE-G	F0095		


Jason Lewis
Vice President of Quality

04/09/14

Inv # 04/09/14



ATELIERS DE LA HAUTE-GARONNE

Ets AURIOL & Cie - S.A. au capital de 201850 EUR - Z.I. de FLOURENS BP73103 26 route de Lasbordes - 31130 FLOURENS (FRANCE)
Tél. (33) 5 61 83 60 35 - Fax (33) 5 61 83 95 05 - RCS TOULOUSE B 550 800 528 - SIRET 550 800 528 00014 - APE 2593Z

PACKING SLIP N° 508973

of 1/09/2011

P/ 1

Supplier number : V1088

DB

Account N°: 3969 Represent.: 08/MPSI	File N° : UI 10 Coface N° 285101298	Your P.O. nbr. : OAFJ03 Our ack: 251704 of 4/07/2011 Invoice N°: 508973 of 1/09/2011
Shipment to B/E AEROSPACE INC 9835 NW 14TH ST (ORIGIN= FRANCE) 33172 MIAMI ETATS UNIS Tél: 00 1 Fax: 001 305 507 7192		Ordered by : B/E AEROSPACE INC P.O. BOX 025263 33102-5263 MIAMI ETATS UNIS Tél: 001 305 925 2600 Fax: 001 305 507 7191
Pre-carriage by : UPS 409W09 le MARDI si >300 kg UPS SCS p		Number of packaging : 2 Net weight : 22.679 Kg. Gross weight: 26.000 Kg.

ITEM	ORDERED	PART NUMBER	QTY.SHIP.	SCHEDULED	TO BE DELIV.
1	50.000 Lb. 10048 Pcs**	AIRCRAFT PARTS NAS20615-4M18 (3) Monel400/NU30/2.4360 univ.head marked cham.option No coating roll sorting NASM20615 ed.3 July 03	50.000 Lb. 9729 Pcs**	16 SEP 2011	

Technical spec: QQ-N-281 class A rev.D

Lot nb 251704 P 001 F001 Qty.: 50.000 Lb.



ATELIERS DE LA HAUTE-GARONNE

Ets AURIOL & Cie - S.A. au capital de 201850 EUR - Z.I. de FLOURENS BP73103 26 route de Lasbordes - 31130 FLOURENS (FRANCE)
Tél. (33) 5 61 83 60 35 - Fax (33) 5 61 83 95 05 - RCS TOULOUSE B 550 800 528 - SIRET 550 800 528 00014 - APE 2593Z

CERTIFICATE of CONFORMITY and TEST REPORT N° A482704

of 05 JUL 2011

ALEX

ACCORDING TO NF L 00-15C AND EN10204 TYPE 3.1

Page 1

Your P.O. nb. :	OAFJ03	of : 04 JUL 2011	Supplier number :	V1088
N° ack. :	251704	of : 04 JUL 2011		
Shipment to : (or notify party) B/E AEROSPACE INC 9835 NW 14TH ST (ORIGIN= FRANCE) 33172 MIAMI ETATS UNIS				

ITEM	ORDERED	PART NUMBER	SHIPPED
1	50.000 Lb.	MS20615-4M18 (3) Monel400/NU30/2.4360 univ.head marked cham.optio roll sorting No coating NASM20615 ed.3 July 03	50.000 Lb. 9729 Pcs **
Technical spec : QQ-N-281 class A rev.D			

Lot nb 251704 P001 F001 Qty.: 50.000 Lb. AHG Wire lot nb.: 165175 Material heat nb.: 68406.
NATO Cod : F0095 Original lot control N°: 192371 P001- F013
Manufacture heading date: 21 APR 2006 Material Producer : DN

Cis./Shear strength 08-058MO	double(D)/simple(S):	D Rc/shear strength	Mini	Maxi	Value	Unit	Test#
		D Rc/shear strength	49.00	59.00	58.54	KSI	5
		D Rc/shear strength	49.00	59.00	56.75	KSI	
		D Rc/shear strength	49.00	59.00	55.08	KSI	

Ecrasement/Driveability conforme: O/N O defaults/defects 0.00 0.00 5

AL	C	CO	CU	FE	MN	NI + CO	P	PB	S	SI
0,00510	0,06200	0,00000	33,37000	1,51000	0,92000	63,95000	0,00000	0,00000	0,00100	0,07000
SN	ZN	ZN+SN+PB								NI BALANCE
0,00000	0,00000	0,00000								

OUR AIRBUS SAS APPROVAL NUMBER IS : 30030 of 31 August 2007
OUR BAE SYSTEMS APPROVAL LETTER REFERENCE IS : ACO/A/LT/JJH/3035

Parts manufactured by AHG and delivered under this CofC are DFARS compliant per DFAR 252.225-7009

We hereby declare, subject to exceptions, reservations, or concessions listed in this statement of conformity, that the listed supplies comply with the contract requirements and that, after completion of testing and verification, they satisfy in every respect all specified requirements and applicable standards and regulations.

SUPPLIER'S INSPECTION 05 JUL 2011 NAME AND FUNCTION ROSE DANIEL (Responsable controle) Computer controlled signature		VISA DGAC Signataire habilité Agrément JAR 21 DGAC FG097 -- TRUE COPY CERTIFICATION --
---	---	---

** Estimated quantity



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

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FIRM: DART AEROSPACE LTD

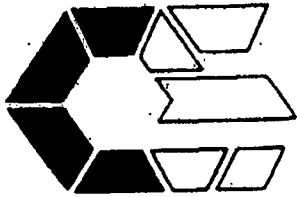
PURCHASE ORDER#: P023714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
7	50	EA	AN4C20A		314378	CALIFORNIA SCREW PRO 82507			


Jason Lewis
Vice President of Quality

04/09/14

Inv # 04/09/14

**CALIFORNIA SCREW PRODUCTS CORP.**

P.O. BOX 228

14957 GWENCHRIS COURT

PARAMOUNT, CALIFORNIA 90723-3423

(562) 633-6626 • FAX (562) 633-2082

PACKING SLIP

Original: 13696

Sold To:

004311
M & M AEROSPACE HARDWARE INC.
P.O. BOX 025263
MIAMI, FL 33102-5263

Ship To:

M & M AEROSPACE HARDWARE INC.
10000 N.W. 15th TERRACE
MIAMI, FL 33172

Customer P.O. No.		Sales Order		Date		Ship Via		Job No.	
OE0081		26797		03-14-07		FED EX GROUND/WATKIN		314378	
Pos	Item	Ordered	Delivered Qty		Unit	Weight		No. of Cartons	

20	AN4C20A	9535	9535		ea	320		10	

CALIFORNIA SCREW PRODUCTS CORP.

14957 GWENCHRIS COURT

PARAMOUNT, CALIF. 90723-3423

CAGE NUMBER : 82507

Airbus UK Approval No. AUK/SA/30144

Job Number : 314378

BAE/AG/30235 / MAA

TEST REPORT

Part Number : AN4C20A
Customer : M & M AEROSPACE HARDWARE INC.
Procurement Spec. : NASM6812 REV. 2
Surface Finish Spec : AMS-QQ-P-35 REV. N/C
Heat Treat Spec : AMS2759/5 REV. D
Mgntc Permeability : N/A

Part Standard : NASM3-20 REV. 1
Cust. Purchase Order Number : OE0081
Thread Size & Form : .250-28 UNF-3A
Thread Spec : MIL-S-7742 REV. D
Sample Size Spec. : NASM6812 REV. 2

Shipped Quantity*: 9535
Mfg Quantity : 25000
Material : 431
Item Description: Bolt
Heat Number : 548173

* Actual piece count is within +/- 2% of the shown lot quantity.

NON-DESTRUCTIVE TESTS / SUBCONTRACTED (SEE CERTIFICATION)

Sample Size : 50 specimens Inspection Results: Accept : 50 Reject : 0 specimens
Magnetic Particle : ASTM E1444-05 Fluorescent Penet. : N/A

METALLURGICAL EXAMINATION RESULTS

Sample Size : 5 specimens Accept : 5 Reject : 0 Lab Mount No. : 33424

GRAIN SIZE : 6	HEAD STRUCTURE : Accept	LAPS : Accept	MICRO STRUCTURE : Accept
FILLET COLD WORKED : Accept	DECARB : Accept	SEAMS : Accept	CARBURIZED : Accept
GRAIN FLOW HEAD : Accept	GRAIN FLOW THREAD : Accept	CRACKS : Accept	THREAD RUN OUT : Accept

MECHANICAL TESTS RESULTS

ULTIMATE TENSILE STRENGTH (lbs.) - Loc. of Failure: Threads Minimum Req.: 4080
Sample Size : 5 specimens Accept : 5 Reject : 0 Maximum Req.: 0

1. 6250	2. 6330	3. 6300	4. 6290	5. 6220	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

SHEAR (lbs.) S/D : SINGLE Sample Size : 5 specimens Accept : 5 Reject : 0 Minimum Req.: 3680

1. 4670	2. 4830	3. 4720	4. 4840	5. 4770	6. N/A	7. N/A	8. N/A
9. N/A	10. N/A	11. N/A	12. N/A	13. N/A	14. N/A	15. N/A	16. N/A
17. N/A	18. N/A	19. N/A	20. N/A	21. N/A	22. N/A	23. N/A	24. N/A
25. N/A	26. N/A	27. N/A	28. N/A	29. N/A	30. N/A	31. N/A	32. N/A

HARDNESS TEST Sample Size : 8 Hardness Req. RC : 26-32 Hardness Results : 28-32

STRESS RUPTURE TEST - N/A Load (Lbs.) : 0 Temperature (F) : 0 Periodic test, REF Job No. :
Sample Size : 0 Hours : 0

FATIGUE TEST - N/A Cycles : 0 Min Req. : 0
Sample Size : 0 Low Load (lbs.) : 0 High Load (lbs.) : 0

TORQUE TEST - N/A Sample Size : 0 Load (Lbs/in) : 0

STRESS DURABILITY TEST - N/A Sample Size : 0 LOAD (Lbs.) : 0 Hours: 0

STATEMENT OF CONFORMANCE:

This report relates only to items inspected/tested. Deviations from standard test methods, if any, are noted, and results from subcontracted inspection or testing, if any, are identified. All items were manufactured in the USA under a quality management system, which complies with ISO 9001 and with AS 9100. CALIFORNIA SCREW PRODUCTS CORP, hereby states: That the above product is mercury free; that the above listed lot has been produced, sampled, tested, inspected and marked in accordance with all requirements and that the product complies with all specification and contract requirements; that evidence of which is in the files of our company subject to examination. This report shall not be reproduced except in full, unless authorized in writing by CALIFORNIA SCREW PRODUCTS CORPORATION.

MARIAELENA
TORRES

FINAL INSPECTOR

(Name, Signature, Stamp and Date)

CERTIFICATE OF TESTS
CERT SERIAL# 000545856

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

07/31/06

CUSTOMER / BESTELLER / CLIENT

SELLER / VERKAUFER / VENDEUR PAGE 1 OF 2

CALIFORNIA SCREW PRODUCTS CORP
PO BOX 228
PARAMOUNT, CA 90723

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET
READING, PA 19601

CUSTOMER ORDER NO. / BESTELL-NR. / N° DE COMMANDE	CARPENTER NO. / WERKS-NR. / N° DE REFERENCE INTERNE	DATE / DATUM / DATE	WEIGHT / GEWICHT / POIDS
54953	LOS008101 L30595	07/31/06	1898.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE :

548173

PRODUCT DESCRIPTION: TYPE 431 ANNEALED SEAM FREE CF WIRE FOR HEADING CL N2
----- HVY CU/MOLY/SOAP

SPECIFICATION: ASTM-A493-95(2004) (TYPE 431) LIGHTLY DRAFTED
----- HI SHEAR/115 REV J (12/02/93)
AMS 5628/REV F (01/ /02)
MIL-S-18732D " CAP OF" MOD NICKEL NOTICE 1 (03/19/91)

SIZE 0.245000/IN.(6.22 MM) RD WIRE

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
0.16	0.61	0.45	0.019	0.002	15.83
NI (XRF)	MO (XRF)	CU (XRF)	N (FUS)		
1.60	0.11	0.11	0.05		

CAPABLE OF PASSING BEND TEST.

THE CHEMICAL ANALYSIS OF THIS HEAT HAS BEEN PERFORMED BY THE CARPENTER SPECIALTY ALLOYS CHEMICAL LABORATORY, (CODE NUMBER PRI 100004), WHICH WAS ACCREDITED TO THE ISO/IEC 17025 (EXPIRATION DATE OCTOBER 31, 2006).

DISCS MACROETCHED AND APPROVED

TENSILE AS SHIPPED, KSI(MPA) 118.0(814)

MAX QUENCH HARDNESS, HRC - 50 - 1875 F(1024 C) 30 MN OIL TREAT
MAGNETIC PARTICLE: FREQUENCY = 0 / SEVERITY = 0

*TENSILE AS SHIPPED, KSI(MPA) 116.0(800) 118.0(814) 118.0(814)

*TENSILE'S REFERRED TO CUSTOMER AND ACCEPTED.

KMIK 7533
JOSE CERVANTES
8.1.2006
CSF

CONTINUED ON NEXT PAGE

CERTIFICATE OF TESTS
CERT SERIAL# 000545856

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE



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101 West Bern Street, Reading, Pa. 19601
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07/31/06

CUSTOMER / BESTELLER / CLIENT

SELLER / VERKÄUFER / VENDEUR PAGE 2 OF 2

CALIFORNIA SCREW PRODUCTS CORP
PO BOX 228
PARAMOUNT, CA 90723

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET
READING, PA 19601

5/13/4378

CUSTOMER ORDER NO. / BESTELL-NR. / N° DE COMMANDE	CARPENTER NO. / WERKS-NR. / N° DE REFERENCE INTERNE	DATE / DATUM / DATE	WEIGHT / GEWICHT / POIDS
54953	LOS008101 L30595	07/31/06	1898.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE :

548173

CAPABILITY

1875 F(1024 C), 30 MN OIL TREAT
1175 F(635 C), 03 HR AIR COOL

MICROSTRUCTURE - FERRITE - NONE

GRAIN SIZE PER ASTM E112: 10

RETAINED AUSTENITE - NONE

CAPABILITY

1875 F(1024 C), 01 HR OIL TREAT
-100 F(-73 C), 02 HR
WARM TO ROOM TEMP
550 F(288 C), 02 HR AIR COOL
550 F(288 C), 02 HR AIR COOL

(T)RANSVERSE (L)ONGITUDINAL
YIELD STRENGTH, (0.20 %) KSI(MPA) L 156.0(1076)
TENSILE STRENGTH, KSI(MPA) 218.0(1503)
ELONGATION IN 2.00", % 16.0
REDUCTION OF AREA, % 57.0

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.
MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS OF DFARS 252.225.7014

(JUNE 2005) ALT.1 AND SUBSECTION 225.872.1.
CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF SEPTEMBER 2, 2004 TO THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 04-0540 BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.

HEIDI L. SUNDAY
MET RELEASE/REQUIREMENTS ANALYST
CARPENTER TECHNOLOGY CORPORATION

KMIK 7533

JOSE CERVANTES
8-T-2006 CSP

Heidi L. Sunday



10643 S. NORWALK BL.
SANTA FE SPRINGS
CALIFORNIA 90670
562-944-8808
800-622-6624
FAX 562-944-1499

CERTIFICATION

CERTIFICATION NUMBER
469973

CALIFORNIA SCREW PARAMOUNT
14957 GWENCHRIS AVE
PARAMOUNT, CA 90723-3423

S
H
I
P
T
O
CALIFORNIA SCREW PARAMOUNT
14957 GWENCHRIS AVE
PARAMOUNT, CA 90723-3423

CUSTOMER NUMBER 0063100	DATE RECEIVED 10/19/06	CUSTOMER P.O. NUMBER 64300	CUSTOMER SHIPPER
----------------------------	---------------------------	-------------------------------	------------------

QUANTITY 25200	WEIGHT 850	PART NUMBER / DESCRIPTION AN4C20A REV. N/A J/N 314378 P/S NASH3-20 REV. 1 H/T PER P.O.	10 PANS
-------------------	---------------	---	---------

ATERIAL 431 S/S	HARDNESS 27-32 HRC	MAX-CROSS SECTION .250	CASE DEPTH	CORE HARDNESS
--------------------	-----------------------	---------------------------	------------	---------------

PECIFICATIONS AMS 2759/5 D

PROCESS	SPEC TEMP	SPEC TIME	EQUIP.	ACT TEMP	TIME IN	TIME AT-HEAT	TIME OUT	ATMOS DEWPT	Q-MED & TEMP	DATE
RACK			RACK		.08	Y				10/27
PREHEAT	1400	:30	V9	1400	05:35	06:25	06:55	VAC	RAISE	10/27
AUSTENITIE	1875	2:00	V9	1875	06:55	07:25	09:25	VAC	OIL	10/27
SUBZERO	-100	2:00	CB1	-100	12:50	13:10	15:10	NIT	A/W	10/27
TEMPER	1125	4:00	D14	1125	22:44	23:30	03:30	AIR	A/C	10/27
TEST RESULTS: 36 HRC										
TEMPER	1125	4:00	D16	1125	07:50	09:30	13:30	AIR	A/C	10/28
LOAD: 02										
RACK			RACK		.08	Y				10/28
PREHEAT	1400	:30	V9	1400	08:00	08:45	09:15	VAC	RAISE	10/30
AUSTENITIE	1875	2:00	V9	1875	09:15	09:50	11:50	VAC	OIL	10/30
SUBZERO	-100	2:00	CB1	-100	13:03	13:20	15:20	NIT	A/W	10/30
TEMPER	1125	4:00	D16	1125	21:05	21:30	01:30	AIR	A/C	10/30
TEST RESULTS: 31-32 HRC										
TEMPER	1125	4:00	D14	1125	18:16	19:00	23:00	AIR	A/C	10/31

LOAD 01 HARDNESS:29-31 HRC QTY TESTED:8 QTY ACCT:12600 QTY REJT: 0 LOAD
22 HARDNESS:27-29 HRC QTY TESTED:8 QTY ACCT:12600 QTY REJT: 0

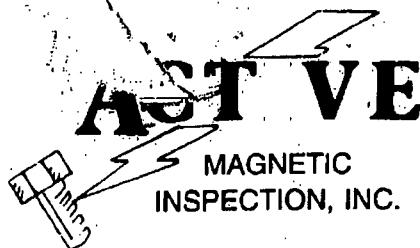
SPECTOR
RANDALL THOMAS

DATE
11/02/06

QUALITY MANAGER
KEN NELSON for DON LOWMAN

is Process Certification covers thermal processing and/or hardness testing only. No particular mechanical properties of any material should be assumed, or are
plied, as a result of the thermal processing and/or hardness testing of this Process Certification.
L FURNACES CERTIFIED TO MEET THE REQUIREMENTS OF AMS-H-6875, CURRENT REVISION. HARDNESS TESTING PERFORMED TO THE LATEST
EVISION OF ASTM E 384, ASTM E 10, ASTM E 110, ASTM E 18, ASTM E 140 AND ASTM A 370.

474388



9356 1/2 San Fernando Road, Unit B • Sun Valley, CA 91352
 (818) 504-0677 • FAX (818) 504-1559

SOLD TO: CALIFORNIA SCREW PRODUCTS
 14957 GWENCHRIS AVE P.O. BOX 228
 PARAMOUNT, CA 90723
 (562) 633-6626

TERMS: net 30

DATE CERTIFIED	DATE RECEIVED	DATE TESTED	CUSTOMER P.O.	PACKAGING METHOD
12-01-2006	11-28-2006	12-01-2006	65501	10
25000 838# AN4C20A REV N/A				
1MAG PASS HIGH HUMIDITY				
NASM3-20 REV 1 J/N# 314378				
High Humidity 13 pcs Acc: 13 Rej: 0				
24 HOUR HIGH HUMIDITY TEST				
71197				
MATERIAL / HEAT TREAT / STATUS OF PARTS 431/FINAL				
ASSINATE MIL-STD-753C METHOD 101/AMS-QQ-P-35 REV N/C/Type II				

RUST PROOF

MAGNETIC SPECIFICATIONS ASTM-E-1444-05

Acceptance Criteria NASM6812 REV 2

Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected
50	0														

Reason Rejected

FLUORESCENT PENETRANT SPECIFICATIONS

Acceptance Criteria

Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected	Accepted	Rejected

Reason Rejected

QC MRG/NDT LEVEL III: DENNIS B BRANNON

This test certification shall not be reproduced except in full. This certification shall not be used by the customer to im-
 product endorsement by any agency of the U.S. government. Active Magnetic Inspection certifies that the
 duct shipped on the above certification were processed, inspected & tested in compliance with all applicable
 standards & specifications. All supporting documentation is on file at Active Magnetic Inspection.

CERTIFICATION/TEST REPORT COPY



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
13	200	EA	MS21069L3		5378241-000	ALCOA ROSAN 800 STAT 66776			


Jason Lewis
Vice President of Quality

04/09/14

Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948076869

Page: 1

Bill To: 5574
B/E AEROSPACE, INC.
P.O.BOX 025263
MIAMI FL 33102-5263
USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Order Contact:

=====

Pack Date	Order #	Cust PO	Ship Via	Weight Pkgs #
11/25/13	F437896	0JRA52		

Line/Rel	Item	U/M	Qty Ordered	Qty To Pack
3-1	BA0650 MK1000-3		482,200	4,508

C/I: MS21069L3

PO Item #: 3

*** TSO C-148 APPVD PART. TSO LABEL REQUIRED ***

Cust Date: 08/19/13

Way Date: 08/12/13

Lot: 5378241-000

COO: UNITED STATES

Waybill:

ECCN: 9A991 Schedule-B Number: 7318.16.0000

HTS-Code: 7318.16.0085

The export classification appears above. You are responsible for all related export license requirements.

MFG C OF C CHEM & PHYS TEST REPORT REQ

SHIP VIA : FED EX GRD

BUYER: CRISTINA SANCHEZ

PHONE:

MATERIAL COMPLIES WITH DFARS 252.225-700

9 PREFERENCE FOR DOMESTIC SPECIALTY

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948076869

Page: 2

Bill To: 5574
B/E AEROSPACE, INC.
P.O.BOX 025263
MIAMI FL 33102-5263
USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight Pkgs #
11/25/13	F437896	0JRA52		

Line/Rel Item

U/M

Qty Ordered

Qty To Pack

METALS" WITH BPS ALTERNATE 1
***SHIP VIA FEDX GRD COLLECT ACCT# 0331-
0149-0 IF 150 LBS OR MORE:SHIP FED
EX FREIGHT ECONOMY COLLECT ACCT# 01875

DO NOT SHIP BY ANY OTHER WITHOUT PROPER
WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.

** BAR CODE PER QAP 33 CLAUSE P REQUIRED

** QAP 33.0 REV F CLAUSES: A,B,C,E,H,P,U
,V. CLAUSE A.3 GENERAL TERMS
APPLIES.

PER PO CHANGE NOTICE OK TO SHIP 66,000 I
N JANUARY 2013 VB

4/26/13 UPDATED TO SHIP 17,800 PCS BY 04
/30/13 PER JESSICA. AA

chem & phys certs

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

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CUSTOMER'S COPY

Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948076869

Page: 1

Bill To: 5574
B/E AEROSPACE, INC.
P.O.BOX 025263
MIAMI FL 33102-5263
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Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight Pkgs #
11/25/13	F437896	0JRA52		

Line/Rel	Item	Qty Ordered	Qty To Pack
3-1	B00650 MK1000-3	482,200	4,508

C/I: MS21069L3

PO Item #: 3

*** TSO C-148 APPVD PART. TSO LABEL REQ'D ***

Cust Date: 08/19/13

Kay Date: 08/12/13

Lot: 5378241-000

COO:UNITED STATES

Waybill:

ECCN:9A991 Schedule-B Number:7318.16.0000

HTS-Code:7318.16.0085

The export classification appears above. You are responsible for all related export license requirements.

MFG C OF C CHEM & PHYS TEST REPORT REQ

SHIP VIA : FED EX GRD

BUYER: CRISTINA SANCHEZ

PHONE:

MATERIAL COMPLIES WITH DFARS 252.225-700

9 PREFERENCE FOR DOMESTIC SPECIALTY

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.


MICHELE M. VARELA
Quality Manager
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Keynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosen Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

Alcoa Fastening Systems  Aerospace Products Fullerton Operations 800 S.STATE COLLEGE BLVD FULLERTON, CA 92831	NO. 8193456	Page 1 of 3
	Lot No. 5378241-000	

TEST REPORT

Supplier Item No. BA0650		Supplier Part No. MK1000-3	
Interchange Part No. MK1000-3 Rev. N/C		Interchange Part No. MS21069L3 Rev. 1	
Interchange Part No.			
Manufactured Quantity 36863	Mfg. Date	Generic Description NUT ANCHOR	Thread Size .1900-32
HEAT TREAT AMS-H-6875 REV. B		Plating AMS-QQ-P416C TYII CL III	
Lubrication AS5272E TY I		NON-DESTRUCT ASTM E1444 REV. 12 SAMPLE	
PERFORMANCE NASM25027 REV. 1			
Material Spec. # AMS 5085-G	Mill Heat No. 109663	Control Heat No. CC17990A	Material Supplier CALSTRIP INDUSTRIES INC

Special Process Requirements:
THREADS AND GAUGING PER AS8879 Rev.DR12
and ASME B1.3M SYS. 22
MIN EQUALS BKWY MAX EQUALS INST

TEST RESULTS

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/Fail	MINIMUM Requirement	MAXIMUM Requirement
1 - 010 TORQUE TEST MAX 18, MIN 2, CYCLES 1,7,15	IN#	1	1	12.25	13.35		2.00	18.00
			7	8.85	8.70			
			15	8.05	8.05			
		2	1	13.30	13.65			
			7	8.30	8.45			
			15	6.90	7.30			
		3	1	15.70	16.70			
			7	10.30	11.20			
			15	7.80	8.05			
		4	1	12.75	13.20			
			7	8.80	9.15			
			15	8.95	8.45			
		5	1	11.45	13.25			
			7	9.35	9.15			
			15	8.55	8.15			
		6	1	11.75	13.05			
			7	9.40	9.45			
			15	8.20	8.25			
		7	1	10.95	12.95			
			7	9.10	9.45			
			15	8.20	7.90			
		8	1	10.40	11.55			
			7	7.60	8.15			

TEST RESULTS - Continued on next page.

THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.



MICHELE M. VARELA, QA MGR.

ALCOA GLOBAL FASTENERS INC.

Rev. 12/02 Form 11199

SHIPPER#: 9948076869

This document shall not be reproduced, except in full, without the written approval of AFS.

**Alcoa
Fastening
Systems**Aerospace Products
Fullerton Operations
800 S.STATE COLLEGE BLVD
FULLERTON, CA 92831**TEST REPORT**

NO.

8193456

Page 2 of 3

Lot No.

5378241-000

Supplier Item No.
BA0650Supplier Part No.
MK1000-3**TEST RESULTS - Continued from previous page.**

----- TEST ----- No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
3 - 020 TENSILE TEST MIN. 2460 LBS.	LBS	9	15	7.65	7.25			
			1	9.10	10.60			
			7	8.05	7.95			
		10	15	7.45	7.85			
			1	13.40	14.05			
			7	9.80	9.55			
			15	8.45	8.65			
			1	3850.00			2460.00	
		2	1	2600.00				
		3	1	2600.00				
4 - 050 EMBRITTLEMENT 23 HOURS	HRS	4	1	2600.00				
		5	1	2600.00				
		6	1	2600.00				
		7	1	2600.00				
		8	1	2600.00				
		9	1	2600.00				
		10	1	2600.00				
		1	1			Pass		
		2	1			Pass		
		3	1			Pass		
5 - 080 PUSH-OUT MIN. 100 LBS.	LBS	4	1			Pass		
		5	1			Pass		
		6	1			Pass		
		7	1			Pass		
		8	1			Pass		
		9	1			Pass		
		10	1			Pass		
		1	1	100.00			100.00	
		2	1	100.00				
		3	1	100.00				
6 - 110 HARDNESS 46-42 HRC	HRC	4	1	100.00				
		5	1	100.00				
		6	1	100.00				
		7	1	100.00				
		8	1	100.00				
		9	1	100.00				
		10	1	100.00				
		1	1	42.00	43.00			
10 - 113 Hardness	-	1	1	(81.50)	(82.00)			

TEST RESULTS - Continued on next page.**THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED**

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MICHELE M. VARELA, QA MGR.

ALCOA GLOBAL FASTENERS, INC.

Rev. 12/02 Form 11198

SHIPPER#: 9948076869

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**Alcoa
Fastening
Systems**Aerospace Products
Fullerton Operations
800 S.STATE COLLEGE BLVD
FULLERTON, CA 92831**TEST REPORT**

NO.

8193456

Page 3 of 3

Lot No.

5378241-000

Supplier Item No.
BA0650Supplier Part No.
MK1000-3**TEST RESULTS - Continued from previous page.**

----- TEST ----- No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
(HR15N)								

Component # 1	Lot Number 5379323-000	Supplier Part No. 90411-3B	Supplier Item No. HAE660
-------------------------	----------------------------------	--------------------------------------	------------------------------------

Manufactured Quantity	Mfg. Date	Generic Description	Thread Size
-----------------------	-----------	---------------------	-------------

Material Spec. # AMS 5085-G	Mill Heat No. 109663	Control Heat No. CC17990A	Material Supplier CALSTRIP INDUSTRIES INC
---------------------------------------	--------------------------------	-------------------------------------	---

Component # 2	Lot Number 5704752-000	Supplier Part No. MS100 .035 X .937 STRIP	Supplier Item No. 082928
-------------------------	----------------------------------	---	------------------------------------

Manufactured Quantity	Mfg. Date 03/27/12	Generic Description	Thread Size
-----------------------	------------------------------	---------------------	-------------

Material Spec. # AMS 5085-G	Mill Heat No. 109663	Control Heat No. CC17990A	Material Supplier CALSTRIP INDUSTRIES INC
---------------------------------------	--------------------------------	-------------------------------------	---

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MICHELE M. VARELA, QA MGR.

ALCOA GLOBAL FASTENERS, INC.

Rev. 12/02 Form 11199

SHIPPER#: 9948076869

CERTIFIED TEST REPORT**Calstrip Steel Corporation****REGISTERED ISO 9001:2000**

7140 Bandini Blvd. • Los Angeles, CA 90040-3388

(323)726-1345 • Fax (323)722-8269

Customer: ALCOA FASTENING SYSTEMS Address: P.O. BOX 1186 PITTSBURGH, PA 15230	Order Number: S70681 / W86508 Customer PO: 220558025 Shipped Date: 02/22/2012 Packlist ID: 118414
Part ID: 082995-CS Description: CR1050 .035 X 8.250 X COIL Drawing #: 082995 Rev #:	Material Spec: AMS 5085G. ASTM A827-02, MS 100 REV.7

HeatID: 109663**CHEMICAL ANALYSIS**

C17990A

C	Mn	P	S	Si	Ni	Cr	Cu	Mo	Resi
0.5300	0.6100	0.0100	0.0040	0.2150	0.0410	0.0680	0.0940	0.0160	
W	V	Sn	Ti	Al	Ca	Zr	Co	N	B
	0.0010	0.0140	0.0040	0.0330				0.0090	0.0005

MECHANICAL AND PHYSICAL PROPERTIES

Yield	Tensile	Elong %	Hardness	Bend Test
			HRB 78	OK

Skid Numbers	# of Coils	Weight
W86508-1	1	1.510
W86508-2	1	1.548
	2	3.058

Grain Size	Olsen Test	Spher%	Decarb	Reduct %
8		100	0	

Comment: SOURCE- NUCOR (USA)2-24-12 **K424**

All work on this order has been performed in accordance with the Company's Quality Assurance Manual

MARIO VARGAS

Technical Services

Form #:

Print Date: 2/22/2012

SHIPPER#: 9948076869

This document shall not be reproduced, except in full, without the written approval of AFS.

This document shall not be reproduced, except in full, without the written approval of AFS.

C156160

Certificate Number: 357357
Date Issued: 05/19/2010

Customer Name: CRESTAR INDUSTRIES, INC.
Customer Address: 7140 BROADWAY BOULEVARD

LOS ANGELES CA 90040

Cust. PO Number: P047105

SEE NOTE
Suitable for conversion to ASTM A562

Coil Number 1472732.000
Rodwell B: 78
TBL 78

Part Number
CR1050-0380H

CHEMICAL ANALYSIS

Part	Slab	05	109663
C		0.53	
Mn		0.610	
P		0.010	
S		0.004	
Si		0.215	
Cu		0.094	
Sn		0.014	
Ni		0.091	
Cr		0.068	
Mo		0.016	
Al		0.033	
N		0.009	
V		0.001	
Nb		0.001	
Ti		0.004	
B		0.0005	
Sb		0.003	

WE HEREBY CERTIFY THE ABOVE IS CORRECT AS CONTAINED IN THE RECORDS OF THE CORPORATION
MELTED AND ROLLED IN THE USA

NUCOR QUALITY ASSURANCE

05-0261 09/19/2007

SHIPPER#: 9948076869



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
9	200	EA	CR3213-4-05		87420050	CHERRY AEROSPACE SAN	11815		


Jason Lewis
Vice President of Quality

04/09/14



CHERRY[®]
AEROSPACE
 SPS Fastener Division, a PCC Company

Cherry Aerospace
 1224 East Warner Avenue
 Post Office Box 2157
 Santa Ana, CA 92707-0157
 USA

PACKING LIST

Order No: SO321684
 Order Date: 04/29/08
 Print Date: 12/03/10

Page: 1

Sold-To: 10015341

Ship-To: 19000244

S O L D T O	B/E AEROSPACE
	PO BOX 025263
	MIAMI, FL 33102-5263
	USA

S H I P T O	B/E AEROSPACE INC C.M.
	10000 N.W. 15TH TERRACE
	MIAMI, FL 33172
	USA

Salesperson (s):110

Purchase Order: 0EZ593

Credit Terms: Net 30
 Net 30

Ship Via: FEDEX FREIGHT
 FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
 IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
 DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS
 DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
 AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

FASTENERS ECCN: 9A991d SCHEDULE B# 8803300010
 TOOLS ECCN: EAR99 SCHEDULE B# 8467290095

TEST REPORTS ENCLOSED
DO NOT DESTROY

Ln	Item Number	Site T Location	Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped	
5	CR3213-4-05 Customer Item: S2906-4-5 NAS9301BNS-4-05 NAS9301B-4-05 M7885/2-4-05 * IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7014 ALT I * PREFERENCE FOR DOMESTIC SPECIALTY METALS	1600			EA	01/16/11	
		A0806	87324747	8245.0		()	
		E0806	87421595	32720.0		()	
		EZLINE-3	87420050	8588.0		()	
		J0607	87420051	32817.0		()	

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

Packing List

**CHERRY®****AEROSPACE**

SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA

**PACKING LIST**

Order No: S0321684 Page: 2
Order Date: 04/29/08
Print Date: 12/03/10

Sold-To: 10015341

Ship-To: 19000244

S
O
L
D
T
O

B/E AEROSPACE
PO BOX 025263
MIAMI, FL 33102-5263
USA

S
H
I
P
T
O

B/E AEROSPACE INC C.M.
10000 N.W. 15TH TERRACE
MIAMI, FL 33172
USA

Ln	Item Number	Site T Location	Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
5		00503	87426489	33131.0		()

TEST REPORTS ENCLOSED
DO NOT DESTROY

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Packing List

CHERRY®
AEROSPACE
SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: S0321684
Order Date: 04/29/08
Print Date: 12/03/10

Page: 1



Sold-To: 10015341

Ship-To: 19000244

**S
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L
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O**

**B/E AEROSPACE
PO BOX 025263
MIAMI, FL 33102-5263
USA**

S
H
I
P
T
O

B/E AEROSPACE INC C.M.
10000 N.W. 15TH TERRACE
MIAMI, FL 33172
USA

Salesperson (s):110

Purchase Order: 0EZ593

Credit Terms: Net 30
Net 30

Ship Via: FEDEX FREIGHT

FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.


 BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
 AIRBUS APPROVAL# 30114 *****

GOODS OF UNITED STATES ORIGIN

TEST REPORTS ENCLOSED

FASTENERS ECCN: 9A991d SCHEDULE B# 8803300010
TOOLS ECCN: EAR99 SCHEDULE B# 8467290095

DO NOT DESTROY

TOOLS ECCN: EAR99 SCHEDULE B# 8467290095									
Ln	Item Number	Site T Location	Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped			
5	CR3213-4-05		1600		EA	01/16/11			
	Customer Item: S2906-4-5								
	NAS9301BNS-4-05								
	NAS9301B-4-05								
	M7885/2-4-05								
	* IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7014 ALT I								
	* PREFERENCE FOR DOMESTIC SPECIALTY METALS								
	1 CR3213-4-05		A0806 87324747	8245.0		()			
	1 CR3213-4-05		E0806 87421595	32720.0		()			
	1 CR3213-4-05		EZLINE-3 87420050	8588.0		()			
	1 CR3213-4-05		J0607 87420051	32817.0		()			

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

CERTIFICATION **ATTENTION: PURCHASING DEPARTMENT**
The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Quality Assurance Representative

Signed

SIM NGUYEN



AEROSPACE
SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



Order No: SO321684
Order Date: 04/29/08
Print Date: 12/03/10


Page: 2

Sold-To: 10015341

Ship-To: 19000244

S O L D T O	B/E AEROSPACE
	PO BOX 025263
	MIAMI, FL 33102-5263
	USA

S H I P T O	B/E AEROSPACE INC C.M.
	10000 N.W. 15TH TERRACE
	MIAMI, FL 33172
	USA

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
5		00503 87426489	33131.0		()

TEST REPORTS ENCLOSED
DO NOT DESTROY

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Quality Assurance Representative

Signed


SIM NGUYEN

**CHERRY AEROSPACE**

SPS Fastener Division, a PCC Company

1224 East Warner Avenue
Santa Ana, CA 92707-0157

Accredited

Chemical Processing

Heat Treating

ISO/IEC 17025

Material Testing Lab

Final Inspection & Test Report
CherryMax® Rivet**An ISO9001 and AS9100 registered company. OASIS #6111041606**

Part Numbers	Rev	Proc. Spec.	Rev	Lot I.D. No.:	87420050
CR3213-4-05	AA	PS-CMR-3000	R	Lot Size:	35,000
CR3213PR-4-05	AA	PS-CMR-3000	R	MFG. Date:	November 10, 2010
** See 2nd Page for the Customer Parts					

ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	87413416	A65052	QQ-A-430/5056	MIL-C-5541 CLEAR CL1A	None
Stem	87389876	A65142	AMS6322 / 8740ST	QQ-P-416/T2CL2/CAD PL	None
Collar	00000000	A65691	A-286 / AMS5731	Passivate per AMS2700	None

W.O. #: 5419632

Final Lube: None

QUALITY CONFORMANCE/ACCEPTANCE RESULTS

MIN REQ'D SAMPLE SIZE SPECS RESULTS	INSTALLED SHEAR		TENSION		SPINDLE RETENTION		DISASSEMBLY
	664		285		125		10
	8	N/A	8	N/A	8	N/A	5
	C-N-M	B	C-N-M	B	C-N-M	B	C-N-M
	1047		365		260		40
	1071		363		272		43
	1044		361		250		37
	1054		368		292		49
	1084		378		266		80
	1049		371		276		
	1049		370		251		
	1062		372		263		

C=CR N=NAS
M=MIL B=BAC
LOAD VALUES
IN POUNDPCS.ITEMSTATUSPCS.ITEMSTATUS20

EXAMINATION

PASS

20

INSTALLATION (Min and Max Grips)

PASS

Comments:

Blind Fastener

Tr. Rev: -

Rev. Date: 11/10/2010

Inspector

A Silva

Q Code

V09



The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.

The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.



CHERRY[®]AEROSPACE
SPC Registered Division, a PCC Company

1224 East Warner Avenue
Santa Ana, CA 92707-0157



Accredited

Nadcap[™]

Chemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab

Final Inspection & Test Report CherryMax[®] Rivet

An ISO9001 and AS9100 registered company. OASIS #6111041606

Lot I.D. No.: **87420050**

Rev: -


Customer Parts List

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
NAS9301BNS-4-05	4	NAS1686	3
M7885/2-4-05	D	MIL-R-7885	D2
NAS9301B-4-05	4	NAS1686	3
S2906-4-5	B	MIL-R-7885	D2
S2906-4-5	B	NAS1686	3
S2906-4-5	B	PS-CMR-3000	R

1547 Helton Drive - Florence, AL 35630

SANTA ANA, CA 92705-5414

SANTA ANA, CA 92705-5414

Customer PO Number VP105020-1		NW WORK ORDER NO. 22254			
DESCRIPTION 123 5056 H32 STEM				AUTHORIZED SIGNATURE QUALITY CONTROL MANAGER	
CUSTOMER PART NO.	ALLOY 5056	TEMPER H32		We hereby certify that the material covered by this report has been inspected in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown on this sheet.	
NW PART NO. H123A7		DATE SHIPPED 6/24/2010			
WEIGHT SHIPPED 600					

LOT NUMBER	# OF TESTS	ULTIMATE		YIELD		% ELONGATION	
		STRENGTH K.S.I.		STRENGTH K.S.I.			
		Min	Max	Min	Max		
K845051	1	48.58	48.58				

COMMENTS:
M005.123 REV P
QQA 430
MILL SOURCE KAISER
MADE IN USA

A65052



NICHOLS WIRE INC
K845051

JUL 10 2010



CHEM COMP	ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		OTHERS	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
	5056		0.30		0.40		0.10	0.05	0.20	4.50	5.60	0.05	0.20	0.05	0.15
		NICKEL		ZINC		TITANIUM		LEAD		BISMUTH					
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
			0.10												
ALUMINUM REMAINDER															

KAISER ALUMINUM FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT
<http://Certs.KaiserAluminum.com>

Kaiser Aluminum & Chemical
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

CUSTOMER PO NUMBER: 13187		CUSTOMER PART NUMBER: 6Z37KH		PRODUCT DESCRIPTION: ALY-JUMBO	
KAISER ORDER NUMBER: 214519442	LINE ITEM: 1	SHIP DATE: 05/13/2010	ALLOY: K540	TEMPER: F	
WEIGHT SHIPPED: 14957 lbs.	QUANTITY: 72 pcs.	B/L NUMBER: 5430	DIAM/DAF/THKNS: 0.375 in.	WIDTH: 0.000 in.	LENGTH: 0.0 in.
SHIP TO: NICHOLS WIRE INC 1547 HELTON AVE FLORENCE, AL 35630			SOLD TO: NICHOLS WIRE INC 1547 HELTON AVE FLORENCE, AL 35630		

Test Code: 4000

Actual Physical Properties

Lot No.

845051 0.0

Chemical Composition, WT. % (Aluminum Remainder)

Lot Cast/Drop ChemID		Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
845051 5-6F2 150475	Act.	0.05	0.09	0.00	0.07	4.6	0.07	0.01	0.01
Chemical Limits	Min Max	0.30	0.40	0.10	0.05 0.20	4.5 4.9	0.05 0.20	0.10	0.05
	Others	Each	0.05	Max		Total	0.15	Max	



A65052

JUL 10 2010

CERTIFICATION

Kaiser Aluminum & Chemical Corp Inc. ("Kaiser") hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales order acknowledgement form. Any warranty is limited to that shown on Kaiser's standard general terms and conditions.

John R. Despina, Technical Manager

Plant Serial: 8416

Kaiser Order Number: 214519442

Page 1 of 2

Line Item: 1

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KAISER ALUMINUM FABRICATED PRODUCTS

Kaiser Aluminum & Chemical
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

CERTIFIED TEST REPORT
<http://Certs.KaiserAluminum.com>

Specifications

QQA-430 REV C

Miscellaneous Notes

Made in USA

Product produced from K540 meets the requirements of aluminum alloy 5056

Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. Actual (Act) chemical composition is from representative samples taken during the ingot casting process. Independent chemical analysis will vary from these values because of natural variation in the process and testing error. This test report shall not be reproduced, except in full, without the written approval of Kaiser Aluminum. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law. Chemical analysis performed in accordance with ASTM E 1251-07. The Newark facility is AS9100B:2004 approved. The Newark Laboratory is NADCAP approved for chemical testing (OES).



JUL 10 2010



CERTIFICATION

Kaiser Aluminum & Chemical Corp Inc. ("Kaiser") hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales order acknowledgement form. Any warranty is limited to that shown on Kaiser's standard general terms and conditions.

John R. Despins, Technical Manager

Plant Serial: 8416

Kaiser Order Number: 214519442

Line Item: 1

Page 2 of 2

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WireTech, Inc.

6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

CHERRY AEROSPACE LLC
1224 E. WARNER AVENUE
SANTA ANA, CA 92705-5414
USA

WORK ORDER
076617

CERTIFICATION

HEAT NO.
10055240
SALES ORDER / RLS
835328 / 1
ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	CARRIERS	LADING NO	SHIPMENT DATE
VPO92778	M272.1040	4,029 Lbs	3	00084691	07/15/2010

SPECIFICATION C208740-101040A

A-8740, AQ, SKFG, CHQ WIRE, SEAM & DECARB FREE, SAIP Zinc Phosphate, Lime & Stearate Coating,
Size:0.103/0.105 Specifications: AMS2301H, AMS6322N, MIL-S-6049A, AMEND1, ASTM-A-547, AMS-S-6049-A, M
272.1040 REV. P.

CERTIFICATION REQUIREMENTS

Chemical Properties

C	Si	Mn	P	S	Cu	Ni	Cr	Mo
.41	.24	.95	.01	.012	.13	.44	.43	.22

Physical Properties

Grain Size	Jominy 1	Jominy 2	Jominy 3	Inclusions	Macro	Cleanliness	Mill Source
6 J5=54	J8=46	J10=40	s2-R1-C2	GOOD	F&S=0	Charter	

Country of Origin
USA - DFAR Compliant

AUG 21 2010



Mechanical Properties

TEST	UNITS	Results
Tensile Strength	KSI	133.4
Yield Strength	KSI	113.4
% Elongation	%	5
% Reduction of Area	%	59.9
Rockwell Hardness C Scale	HRC	29
Decarb (Total)	In	0.00

Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. "The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47."

REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL.

Wire Tech, Inc. metallurgical laboratory is accredited in the following test: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IFI 140, inclusion rating per ASTM E 45, decarburization performed as per IFI 140. The reported Chemical and Physical Properties are Melt Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by Wire Tech, Inc. A2LA accreditation.

TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.
"LATEST REVISIONS OF ASTM"

Material is free of mercury, radium, or alpha contamination.

Handwritten signature

A65142



CHARTER STEEL

A Division of
Charter Manufacturing Company, Inc.

EMAIL

1658 Cold Springs Road
Saukville, Wisconsin 53080

(262) 268-2400

1-800-437-8789

FAX (262) 268-2570

CHARTER STEEL TEST REPORT

Reverse Has Text And Codes

Wiretech Incorporated
6440 East Canning Street
Los Angeles, CA-90040
Kind Attn :Cert To Contact

Cust P.O.	6461-6
Customer Part #	8740C1A060-C-R
Charter Sales Order	70007603
Heat #	10055240
Ship Lot #	4012406
Grade	8740 R SK FG AQ 1/4
Process	HRSA
Finish Size	1/4

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Lab Code: 7388

Test Results of Heat Lot# 10055240

CHEM	C	MN	P	S	SI	NI	CR	MO	CU	SN	V
%Wt	.41	.95	.01	.012	.24	.44	.43	.22	.13	.007	.003

AL	N	B	TI	NB
.027	.007	.0003	.002	.001

JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM11	JOM12
	58	58	58	56	54	52	49	46	43	40	39	37
	JOM13	JOM14	JOM15	JOM16	JOM18	JOM20	JOM22	JOM24	JOM26	JOM28	JOM30	JOM32
	36	35	34	33	32	31	31	31	30	30	30	29



A65142

JOMINY SAMPLE TYPE ENGLISH = B JOMINY LAB = 0358-01
AMS 2301 FREQUENCY AVERAGE = .05 AMS 2301 FREQUENCY INDIVIDUAL = .13
AMS 2301 SEVERITY AVERAGE = .02 AMS 2301 SEVERITY INDIVIDUAL = .07
CHEM. DEVIATION EXT.-GREEN =

REDUCTION RATIO = 616:1

Test Results of Rolling Lot# 1005070

Test Results of Processing Lot# 4012300,4012406

	# of Tests	Min Value	Max Value	Mean Value	
TENSILE	1	85.5	85.5	85.5	TENSILE LAB = 0358-02
REDUCTION OF AREA	1	66	66	66	RA LAB = 0358-02
ROCKWELL B	1	87	87	87	RB LAB = 0358-02

NUM DECARB = 1 FREE FERRITE DECARB = 0 FREE FERR & PARTIAL DECARB = .003
CP SPHERO % LAB = 0358-02 NUM SPHERO = 1 SPHERODIZATION = 82.5

Specifications:

Manufactured per Charter Steel Quality Manual Rev 8,12-05-07
Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = COP 3010 Revision = M Dated = 12-MAR-03

Additional Comments:

MEETS REQUIREMENTS OF SPECIFICATIONS AMS6322N/AMS2301J/MIL-S-6049A

AUG 21 2010



Charter Steel
Saukville, WI, USA



Page 1 of 1

Janice Barnard
Manager of Quality Assurance
04/12/2010

Rem: Load1,Fax0,Mail0

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Possible Laboratory	Specification
Chemistry Analysis	CSSM, CSCM/CSCR	ASTM E415; ASTM E1019
X-ray Fluorescence Stainless and Alloy Steel	CSCM/CSCR	ASTM E572
Macroetch	CSSM, CSCM/CSCR	ASTM E381
Hardenability (Jominy)	CSSM, CSCM/CSCR	ASTM A255; SAE J406; JIS G0561
Grain Size	CSSM	ASTM E112
Tensile Test	CSSR/CSSP, CSFP, CSCM/CSCR	ASTM E8; ASTM A370
Rockwell Hardness	All labs	ASTM E18; ASTM A370
Microstructure (spheroidization)	CSSR/CSSP, CSFP	ASTM A892
Inclusion Content (Methods A, E)	CSSR/CSSP, CSCM/CSCR	ASTM E45

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/11.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers
 - Both sides of all pages must be reproduced in full
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.



AUG 21 2010



A65142

Certificate of Analysis

Radcliff Wire Inc. 97 Ronzo Rd., P.O. Box 603, Bristol, CT 06010

Date Shipped: 10/4/2010

PO #: VP105019

Qty. Shipped: 53 LBS-4-BLACK
MIG SPOOLS

Radcliff No.: 118534

Heat No.: Z1375MK13

Customer: CHERRY AEROSPACE
SANTA ANA OPERATIONS
1224 EAST WARNER AVE
SANTA ANA, CA 92705-5414

Country of Origin: USA

Original Mill Source: USA

Size: .006 X .011 X .056 ***

Material: A286 Stainless Steel

Description: SPECIAL SHPAE

Specification: AMS 5737 REV P, AMS 5731 REVL
CHEM ONLY

Notes:

DFAR COMPLIANT
NET WGT 53 LBS
PART# M189.44 REV W

NOV 08 2010



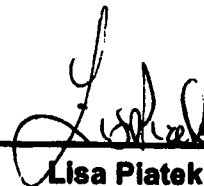
Chemical Properties

Al: 0.17%	B: 0.008%	Bi: PPM<0.1%	C: 0.04%	Co: 0.06%
Cr: 14.57%	Cu: 0.06%	Fe: 56.57%	Mn: 0.11%	Mo: 1.28%
Ni: 24.52%	P: 0.007%	Pb: PPM0.3%	S: 0.003%	Si: 0.18%
Ti: 2.14%	V: 0.3%			

Tensile: 101 KSI

Rockwell:

Certs/Material


Lisa Platek

Certification Clerk

The material as shipped is free from mercury contamination

RADCLIFF WIRE, INC.
Z1375MK13



A65691

A-1 Wire Tech. Inc.

2575 E. Main Road, Bristol, CT 06011
Tel: 860.439.1100 Fax: 860.439.1101

Certified Material Test Report

HEAT/LOT

Load ID. 00080111

Z1375MK13

SOLD TO

Page 1

SP

Radcliff Wire
97 Ronzo Road
Bristol, CT 06011-0603
USA

QUALITY SYSTEMS
Certificate 3.1 as in EN 10204
Material manufactured in accordance
with a quality management system
certified to ISO 9001:2008 by
ABS-QE (Certification No. 33373)

SALES ORDER
088861 / 1

Date Printed 07/23/2010

CUSTOMER P.O. 40815	CUSTOMER PART	QUANTITY 145.00	PIECES 1	SHIPMENT DATE 07/23/2010						
PRODUCT: Alloy: A286 Diameter: .028" Temper: 1/8 Hard Finish: 7662861-028-50-01										
CERTIFICATION REQUIREMENTS MATERIAL IS RoHS COMPLIANT										
*As Shipped Properties										
TEST *Tensile	UNITS ksi	RESULTS 116								
Chemical Analysis %										
C	Mn	Si	P	S	Cr	Ni	Co	Ti	V	Fe
.04	.11	.18	.007	.003	14.57	24.52	.06	2.14	.3	56.57
Cu	Mo	B	Al	Pb	Bi					
.06	1.26	.006	.17	PPM.3	PPM<.1					
Specifications										
*Melt Source DFARS COMPLIANT / MELT SOURCE: HUNTINGTON ALLOYS / COUNTRY OF ORIGIN: USA / MFG: USA										
Specification:										
End of Certification										



NOV 08 2010



A65691

Visual and dimensional examination
Satisfactory
Material, when shipped is free from
contamination by mercury, radium,
alpha source, and low melting
point elements.

This is to certify that all required samplings, inspections, operations and tests
performed by A-1 Wire Tech, Inc. and its subcontractors are in accordance with the
specification requirements. The test report represents the actual attributes of the
material furnished and the values shown are correct and accurate. The material
described by this certificate is in full compliance with all order and inspection
requirements. We hereby certify that the above data are in accordance with the
specification requirements.

Suzanne Mullins

Suzanne Mullins
Quality Assurance Manager

HUNTINGTON ALLOYS CORPORATION

A Special Metals Company

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

WESTERN U.S.

P

HUNTINGTON, WEST VIRGINIA 25705-1771

A-1 WIRE TECH 840 AIRPORT DR ROCKFORD, IL 61109	CERTIFIED MATERIAL TEST REPORT
	No. 84052
	HA ORDER NO/ITEM 300018997 1 DATE 06/24/09 PAGE 1 OF 3
	QUANTITY 7332 LBS INSPECTED BY HA/SMC
A-1 WIRE TECH INC 4550 KISHWAUKEE ST ROCKFORD IL 61109	CHARGE ORDER NO. 22351-2 MARK ORDER NO. 22351-2
	DESCRIPTION OF MATERIAL INCOLOY ALLOY A-286 VIN-ESR HR ROD - COIL PKL ANN .3120 IN COIL COIL

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

REV. 008

*****THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.*****

SPECIFICATIONS: A-1 A286 RESTRICTED FOR CUST 187, 1250, 211 REV 9-30-08\
 SAE AMS 5731L CHEM ONLY\SAE AMS 5732J CHEM ONLY\
 SAE AMS 5734K CHEM ONLY\SAE AMS 5737N CHEM ONLY\
 SAE AMS 5726D CHEM ONLY\GE C50TF35-S4 AM 7 CLASS A CHEM ONLY\
 SPS-M-118 REV L CHEM ONLY\GE S-400 (10-31-07)\
 GE S-1000 (1-2-2008)\
 HEAT TREAT & STRESS RUPTURE CAPABILITY TESTING\
 QUALITY SYSTEM CERTIFICATION: ISO 9001:2000 (ABS-QE CERT. 30125);
 EN 10 204/DIN 50049 (TYPE 3.1)

UNS:366286

A65691



RADCLIFF WIRE, INC.-
 Z1375MK13

HEAT#	CHEMICAL ANALYSIS (WT. X)								
	C TI	MN CO	FE NO	S P	SI B	CU PB/PPM	NI BI/PPM	CR V	AL
21375MK	0.04 2.14	0.11 0.06	56.57 1.26	0.003 0.007	0.18 0.006	0.06 0.3	24.52 <0.1	14.57 0.30	0.17

TO CONVERT PPM TO WT.X, MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.
 MELT METHOD: VIN + ELECTROSLAG REMELTED



NOV 08 2010

MECHANICAL PROPERTIES									
HEAT/LOT	QUANTITY	HARD NESS	GRAIN SIZE	YIELD .2XPSI	TENSILE PSI	XELG	R/A X	DEG F	
X 100 X 100									
21375MK									
ROOM TEMP-	-CAPABILITY **			1022	1595	28.1	51.5		HEAT TREAT #2
ROOM TEMP-	-CAPABILITY **			1113	1647	26.8	49.1		HEAT TREAT #1
HARDNESS -HRC	-CAPABILITY	29.7							HEAT TREAT #1
HARDNESS -HRC	-CAPABILITY	27.6							HEAT TREAT #2
STRESS RUPTURE-CAPABILITY				1200 DEG F/	75,000 PSI STRESS/	062.0 HRS /	9.8XEL IN 4D	/16.2XRA/	

WESTERN U.S.

HUNTINGTON ALLOYS CORPORATION
A Special Metals Company

HUNTINGTON, WEST VIRGINIA 25705-1771

NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT
STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE
AS A FELONY UNDER FEDERAL STATUTE.

A-1 WIRE TECH 840 AIRPORT DR ROCKFORD, IL 61109	CERTIFIED MATERIAL TEST REPORT		No. 84052
	HA ORDER NO/ITEM 300018997 1	DATE 06/24/09	PAGE 2 OF 3
A-1 WIRE TECH INC 4550 KISHWAUKEE ST ROCKFORD IL 61109	QUANTITY 7332 LBS	INSPECTED BY HA/SNC	THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS. REV. 8/08
	CHARGE ORDER NO. 22351-2	MARK ORDER NO. 22351-2	
DESCRIPTION OF MATERIAL INCOLOY ALLOY A-286 VIN-ESR HR ROD - COIL PKL ANN .3120 IN COIL COIL			

STRESS RUPTURE SPECIMEN DIAMETER - .250" STRESS WAS INCREASED PER SPECIFICATION OPTION TO INDUCE EARLY FRACTURE
HEAT TREAT #2

STRESS RUPTURE-CAPABILITY

1200 DEG F/ 70,000 PSI STRESS/ 073.1 HRS / 33.4XEL IN 4D /46.8XRA/
STRESS WAS INCREASED PER SPECIFICATION OPTION TO INDUCE EARLY FRACTURE
HEAT TREAT #1

21375MK 13 9 PCS
ROOM TEMP-HRB -AS SHIPPED *** 76.0 0380 0899 47.8 70.6

GRAIN SIZE-AS SHIPPED AGS ASTM NO. 8.
NORMAL - TRAN

** TENSILE SPECIMEN GAUGE LENGTH - 4 X DIAMETER
*** TENSILE SPECIMEN GAUGE LENGTH - 01.500

YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

CAPABILITY HEAT TREAT #1: HEATED AT 1650 DEG F 30 MINUTES, WATER QUENCHED.
THEN HEATED AT 1325 DEG F 16 HOURS, AIR COOLED.

CAPABILITY HEAT TREAT #2: HEATED AT 1800 DEG F 30 MINUTES, WATER QUENCHED.
THEN HEATED AT 1325 DEG F 16 HOURS, AIR COOLED.

NO WELDING OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, & LOW MELTING ELEMENTS

"CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES.
ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

NOV 08 2010

A65691



RADCLIFF WIRE, INC -P-
Z1375MK13

WESTERN U.S.

HUNTINGTON ALLOYS CORPORATION
A Special Metals Company

HUNTINGTON, WEST VIRGINIA 25705-1771

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AS A FELONY UNDER FEDERAL STATUTE.

A-1 WIRE TECH 840 AIRPORT DR ROCKFORD, IL 61109	CERTIFIED MATERIAL TEST REPORT		No. 84052	
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	CHARGE ORDER NO. 22351-2	MARK ORDER NO. 22351-2		
DESCRIPTION OF MATERIAL INCOLOY ALLOY A-286 VIN-ESR HR ROD - COIL PKL ANN .3120 IN COIL COIL				

THIS IS TO CERTIFY THAT ALL REQUIRED SAMPLING INSPECTIONS
AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE
ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT
REPRESENTS THE ACTUAL ATTRIBUTES OF THE MATERIAL
FURNISHED AND THE VALUES SHOWN ARE CORRECT AND TRUE.
THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL
COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS.
WE HEREBY CERTIFY THAT THE BELOW FIGURES ARE IN
ACCORDANCE WITH THE SPECIFIED CONTRACT REQUIREMENTS.

REV. 080

"QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 97/23/EC (PRESSURE EQUIPMENT DIRECTIVE),
ANNEX 1, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE 41734 (EXPIRES JULY 31, 2011)."

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES :
W.E. BOLEN, P.D. CUSTER, M.A. MORRISON, P. WAUGH, D.K. MILLER

CERTIFIED TESTING LABORATORY DATA SOURCE IATF

AEBG VENDOR NO. 47150

M.R.B. CASE RECORD NO.: NONE

AUTHORIZED VENDOR SIGNATURE

DATE: 06/24/09

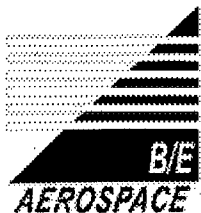


NOV 08 2010

A65691



RADCLIFF WIRE, INC.-F
Z1375MK13



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
8	200	EA	CCR264SS-3-03		87427459	CHERRY AEROSPACE SAN 11815			


Jason Lewis
Vice President of Quality

04/09/14

Inv # 04/09/14



CHERRY®

AEROSPACE

SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: SO321649

Page: 1

Order Date: 04/29/08

Print Date: 12/20/10



Sold-To: 10015341

Ship-To: 19000244

S O L D T O	B/E AEROSPACE
	PO BOX 025263
	MIAMI, FL 33102-5263
	USA

S H I P T O	B/E AEROSPACE INC C.M.
	10000 N.W. 15TH TERRACE
	MIAMI, FL 33172
	USA

Salesperson (s):110

Purchase Order: 0FA351

Credit Terms: Net 30

Ship Via: FEDEX NATIONAL

Net 30

FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0

IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE

DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS

DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.





BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3

AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

FASTENERS ECCN: 9A991d SCHEDULE B# 8803300010

TOOLS ECCN: EAR99 SCHEDULE B# 8467290095

Ln	Item Number	Site T LocationLot/Serial	Qty Open Qty to Ship UM	Promised Shipped
14	CCR264SS-3-03 Customer Item: BACR15DR3-3 S1972-3 NSA5448-24-03 * IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7014 ALT I * PREFERENCE FOR DOMESTIC SPECIALTY METALS	1600	EA	02/01/11
		EZLINE-2 87427453	98200.0	()
		EZLINE-2 87427458	500.0	()
		EZLINE-2 87427459	98400.0	()
		EZLINE-2 87427460	99700.0	()

TEST REPORTS ENCLOSED

DO NOT DESTROY

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

Packing List

179

**CHERRY®****AEROSPACE**

SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA

**PACKING LIST**

Order No: SO321649

Page: 1

Order Date: 04/29/08

Print Date: 12/20/10



Sold-To: 10015341

Ship-To: 19000244

S O L D T O	B/E AEROSPACE
	PO BOX 025263
	MIAMI, FL 33102-5263
	USA

S H I P T O	B/E AEROSPACE INC C.M.
	10000 N.W. 15TH TERRACE
	MIAMI, FL 33172
	USA

Salesperson (s):110

Purchase Order: 0FA351

Credit Terms: Net 30

Ship Via: FEDEX NATIONAL

Net 30

FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

FASTENERS ECCN: 9A991d SCHEDULE B# 8803300010

TOOLS ECCN: EAR99 SCHEDULE B# 8467290095

Ln	Item Number	Site T LocationLot/Serial	Qty Open Qty to Ship	UM	Promised Shipped	
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	* IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7014 ALT I					
	* PREFERENCE FOR DOMESTIC SPECIALTY METALS					
		EZLINE-2 87427453	98200.0		()	
		EZLINE-2 87427458	500.0		()	
		EZLINE-2 87427459	98400.0		()	
		EZLINE-2 87427460	99700.0		()	

TEST REPORTS ENCLOSED**DO NOT DESTROY**

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CERTIFICATION**ATTENTION: PURCHASING DEPARTMENT**

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Quality Assurance Representative

Signed

SIM NGUYEN

**CHERRY[®] AEROSPACE**
SPS Customer Division, a PCC CompanyChemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab1224 East Warner Avenue
Santa Ana, CA 92707-0157**Final Inspection & Test Report**
Cherry[®] Rivet**An ISO9001 and AS9100 registered company. OASIS #6111041606**

Part Numbers	Rev	Proc. Spec.	Rev	Lot I.D. No.: 87427459 Lot Size: 100,000 MFG. Date: December 17, 2010
CCR264SS-3-03	AD	PS-NPR-200	M	

ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	87427459	A66041	C-1018/ ASTM-A 510/ ANNEALED	CAD PL / QQ-P-416,T2,C2	Rust Inhibit
Stem	87430331	A65859	Carbon Steel per ASTM A-510	None	Rust Inhibit

W.O. #: 5421775 Final Lube: None

QUALITY CONFORMANCE/ACCEPTANCE RESULTS

MIN REQ'D SAMPLE SIZE SPECS	INSTALLED SHEAR				TENSION				AIR EXP.			
	105				155				0.109			
	26				26				32			
RESULTS	164	181	177	172	185	182	185	186	0.118	0.117	0.117	0.117
	175	177	170	177	190	189	184	183	0.117	0.118	0.117	0.118
	185	177	175		185	185	187		0.118	0.119	0.119	0.118
	174	177	179		186	181	188		0.118	0.118	0.118	0.117
	177	178	175		189	188	183		0.117	0.118	0.118	0.118
	179	176	157		185	186	185		0.119	0.117	0.117	0.117
	173	178	179		191	185	181		0.118	0.118	0.117	0.117
LOAD VALUES IN POUNDS	177	176	177		190	185	182		0.117	0.115	0.118	0.118

PCS.	ITEM	STATUS	PCS.	ITEM	STATUS
125	EXAMINATION	PASS	32	INSTALLATION (Min and Max Grips)	PASS

Comments:

Blind Fastener

Tr. Rev.:
Rev. Date: 12/17/2010Inspector
V Iriarte

Insp. Control #: 282607

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.



CHERRY AEROSPACE
SPS Passenger Division, a PCC Company



Accredited

Nadcap

Chemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab

1224 East Warner Avenue
Santa Ana, CA 92707-0157

Final Inspection & Test Report Cherry® Rivet

An ISO9001 and AS9100 registered company. OASIS #6111041606

Lot I.D. No.: 87427459

Rev: -

Customer Parts List

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
BACR15DR3-3	AH		
NSA5448-24-03	B	PS-NPR-200	M
S1972-3	D	PS-NPR-200	M



WireTech, Inc.

6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

CHERRY AEROSPACE LLC
1224 E. WARNER AVENUE
SANTA ANA, CA 92705-5414
USA

WORK ORDER
079754

CERTIFICATION

HEAT NO.
371500
SALES ORDER / RLS
837325 / 1
ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CUSTOMER P.O. PO120169 ✓	CUSTOMER PART m114.0900 ✓	QUANTITY 716 Lbs	CARRIERS 1	LADING NO 00087116	SHIPMENT DATE 12/02/2010
SPECIFICATION C201018-300900A C-1018, AKFG, CHQ WIRE, SAIP Zinc Phosphate, Lime & Stearate Coating, Size:0.0895/0.0905 Specifications: M114-090, REV M, ASTM-A510,ASTM-A545					
CERTIFICATION REQUIREMENTS					
Chemical Properties					
C .18	Si .090	Mn .82	P .014	S .011	Cu .08
				Ni .06	Cr .08
				Mo .02	Al .025
					N .0060
Physical Properties					
Mill Source Charter					
Mechanical Properties					
TEST Tensile Strength	UNITS KSI	Results 62.1 ✓			
<div style="text-align: center;"> DEC 07 2010 DEC 06 2010 </div> <div style="text-align: center;"> </div> <div style="text-align: right;"> A66041 </div>					
<p>Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. "The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47."</p> <p>REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL.</p> <p>Wire Tech, Inc. metallurgical laboratory is accredited in the following test: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IFI 140, inclusion rating per ASTM E 45, decarburization performed as per IFI 140. The reported Chemical and Physical Properties are Mill Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited by A2LA or covered by Wire Tech, Inc. A2LA accreditation.</p> <p>TEST RESULTS RELATE ONLY TO THE ITEMS TESTED. "LATEST REVISIONS OF ASTM"</p> <p style="text-align: right;">Material is free of mercury, radium, or alpha contamination.</p>					

AUG-17-2006 WED 05:03 PM

CHARTER ROLLING Q/C DEPT

+1 282 289 2554

P. 05

FAX



CHARTER STEEL

CHARTER STEEL TEST REPORT

Reverse Has Text And Codes

A Division of
Charter Manufacturing Company, Inc.

1658 Cold Springs Road

Saville, Wisconsin 53090

(262) 268-2400

(800) 437-8789

FAX (262) 268-2570

Westech Incorporated
6440 East Canning Street
Los Angeles, CA 90040
Attn:

Charl. P.O.	5827
Charl. Part	1018-3C055-C
Charter Sales Order	186058
Heat #	371500
Shp Lot #	372351
Grade	1018-A AK PG RH0
Process	H8
Finish Size	7/32

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies those requirements.

Test Results of Heat Lot # 371500

LAR CODE: 138A

Chemistry	C	MN	P	S	SI	NI	CR	MO	CU	SN	V
Wt%	0.18	0.83	0.014	0.011	0.086	0.06	0.06	0.02	0.06	0.007	0.001
	AL	N	B	TI	NS						
	0.028	0.0086	0.0002	0.001	0.001						

CHEM. DEVIATION EXT. GREEN = N/R

Test Results of Rolling Lot # 371501

	# of Tests	Min Value	Max Value	Mean Value
TENSILE (KSI)	1	73.0	73.0	73.0
REDUCTION OF AREA (%)	1	63	63	63

TENSILE LAB = 0984-02
RA LAB = 0984-02

NUM DECARB = 1 FREE FERRITE DECARB = 0.000 AVE DECARB = 0.002
QC DEVIATION EXT. GREEN = N/R

Test Results of Processing Lot

QC DEVIATION EXT. PROCESSED = N/R

Specifications:

Made customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = COP 3060 Revision = 1 Dated = 12-MAR-2003

DEC 07 2010



A66041

Charter Steel
Saville, WI, USA

Fax number: (323) 728-8360 Attn: Lead, Mail, Fax



Page: 1 of 1

Tim Leary
Tim Leary
Manager of Quality Assurance
08/16/2006

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSMD	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSR/D/CDPD	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	P4	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSC	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
358.05	128003	CSDT	Charter Steel Detroit	23860 Sherwood Ave. Center Line, MI 48015
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Possible Laboratory	Specification
Chemistry Analysis	CSMD, CSC	ASTM E415; ASTM E1019
X-ray Fluorescence Stainless and Alloy Steel	CSC	ASTM E572
Macroetch	CSMD, CSC	ASTM E381
Hardenability (Jominy)	CSMD, CSC	ASTM A255; SAE J406; JIS G0561
Grain Size	CSMD	ASTM E112
Tensile Test	CSR/D/CSPD, P4, CSC, CSDT	ASTM E8; ASTM A370
Rockwell Hardness	CSMD, CSR/D/CSPD, P4, CSC, CSDT	ASTM E18; ASTM A370
Microstructure (spheroidization)	CSR/D/CSPD, P4	ASTM A892
Inclusion Content (Methods A, E)	CSR/D/CSPD, CSC	ASTM E45

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/09.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

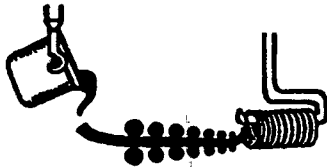
6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers
 - Both sides of all pages must be reproduced in full
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Purchase Order number) to the customer's purchase order. Both Purchase Order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.



DEC 07 2010



A66041



10624 0058 **WIRETECH, INC.**
6440 E. CANNING ST. SPUR 6604
COMMERCE, CA
90040

MILL TEST CERTIFICATE

This report contains analysis data that were produced under subcontract by laboratory Arcelor/Mittal Canada, Standards Council of Canada certificate number 270.

NVLAP only covers the chemistry presented within this certificate. All other data is not covered by the NVLAP accreditation.

IVACO ROLLING MILLS LP

P.O. BOX 322, L'ORIGNAL, ONTARIO, CANADA K0B 1K0
TEL: (613) 675-4671 FAX: (613) 675-6866



NVLAP
Lab Code 200143-0

ATTENTION : A Stephan/M Martinez VIA : EMAIL

Date Rolled 10-Sep-2010

Date Chemical Analysis Performed 21-May-2010

P.O. Number	Order Number	Heat Number	Customer Spec	Spec Rev. No.	Customer Part No.	Billet Order	Grade	Diameter										
006527	10127492	C80712	1018AKFG	REV S 21/21/2009	1018-03C055-C	301027	1018AK CHQ	5.50 mm										
Heat Analysis																		
	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	N	B	V	Ti			
Spec. Min*	.16	.65									.035							
Actual	.18	.74	.005	.006	.04	.03	.02	.020	.005	.002	.046	.0030	.0001	.002	.000			
Spec. Max*	.19	.85	.020	.020	.10	.08	.10	.100	.040	.020	.060	.0090	.0005					

This is to certify that heat number C80712 is in conformance with the required specifications.

Heat analysis obtained by test methods ASTM E415 and ASTM E1019.
*Minimum and maximum refer to the required customer specification.

This is to certify that the material is in conformance with the required specifications.
Radioactive emissions are at background levels.

This steel was produced using a fine grain steelmaking practice (6-11).

Aluminum to Nitrogen ratio = 15.333

Results of Physical Testing			
	UTS (KSI)	ROA (%)	DIA. (in)
Averages	72.30	68.55	.2169



NOV 22 2010



A65859

APPROVED BY :

Supervisor, Chemistry Laboratory and Billet Inspection

This Certificate shall not be reproduced except in full, without the written approval of Ivaco Rolling Mills LP, a Heico Company. This certificate is not to be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

ISSUED BY QUALITY ASSURANCE :

Date: 13 Sep 2010

Specification Clerk



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: P023714

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
12	1500	EA	MS21043-4		UK030	ALCOA FASTENING/REPU	52828		


Jason Lewis
Vice President of Quality

04/09/14

PACKING LIST

GREER STOP NUT

481 McNALLY DRIVE - NASHVILLE, TN 37211

PACKING LIST

THE PRODUCTS THAT ARE COVERED BY THIS AGREEMENT ARE OF U.S. ORIGIN OR OTHERWISE SUBJECT TO U.S. EXPORT AND OTHER FOREIGN TRADE CONTROLS. THE EXPORT, DEEMED EXPORT, RE-EXPORT, OR RELEASE OF THESE PRODUCTS TO OTHER COUNTRIES OR PARTIES MAY REQUIRE THE PRIOR APPROVAL OF THE U.S. GOVERNMENT. DIVERSION OF THESE PRODUCTS FROM THE AUTHORIZED DESTINATION CONTRARY TO U.S. AND INTERNATIONAL LAW IS PROHIBITED. THE PURCHASER AGREES TO COMPLY WITH APPLICABLE LAWS AND REGULATIONS OF THE UNITED STATES, OTHER RELEVANT JURISDICTIONS, AND PERTINENT INTERNATIONAL ORGANIZATIONS PERTAINING TO THE EXPORT, DEEMED EXPORT, RE-EXPORT, OR RELEASE OF THESE PRODUCTS. ANY VIOLATIONS OF THIS CLAUSE, AS DETERMINED SOLELY BY IPS TECHNOLOGIES AND OR GREER STOP NUT, SHALL BE DEEMED A MATERIAL BREACH OF THIS AGREEMENT.

CLAIMS FOR GOODS RECEIVED MADE ON RECEIPT OF GOODS. NO MATERIAL ACCEPTED FOR SALE WITHOUT OUR PERMISSION.

PREVENT FRAUD

Any alteration or misuse of this certificate, or any unauthorized rework or modification of the identified products voids all manufacturer's warranties, and may lead to civil damages and/or criminal penalties.

PUBLISHED 07/10/12

ORDER NBR 070473-004

CUSTOMER NBR 01-0001-00427568-0001

ORDER DATE 03/12/12

P/S H 070473004

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B/E AEROSPACE CONSUMABLES
MANAGEMENT
8720 E 34 ST N
WICHITA, KS 67226

B/E AEROSPACE CONSUMABLES
MANAGEMENT (MIAMI)
P O BOX 025263
MIAMI, FL 33102-5263

7/10/12

CUSTOMER P.O.		TERMS		SHIP FROM	SCHEDULE DATE				
OFZB91		S	1/2% 10.NET 30	AI	05/21/12		FO # OFZB91		
CARRIER CD/DESC			CARRIER NBR	FREIGHT		REG	TERR	CREP	REQ. DATE
TRK ANY TRUCKING FIRM				COLLECT		2751	52	0103	03/12/12
LNE	PRODUCT CODE	DESCRIPTION		ALTERNATE CODE		QUANTITY	UM	UNIT PRICE	ACT QTY
004	0506980	MS21044N9		F52N7691-0918		47728	C		24,603
UNDER 150# SHIP FEDEX GROUND ACCT									
#0331-0149-0 MARK COLLECT									
OVER 150 LBS SHIP FED EX NATIONAL LTL									
ACCT #081757									
SHIPPING BOX WEIGHT LIMIT 40 LBS.									
CHEMICAL AND PHYSICAL CERTS-- DUAL CERT TO BOTH									
MS21044N9 AND F52N7691-0918									
SHIP VARIANCE +/- 10%									
TOTAL QUANTITY- 100000									
DO NOT MARK/ENGRAVE PARTS WITH X									
PARTS TO BE HARDENED TO NO LESS THAN 26 HRC									
NUT CLOSER TO HAVE STAKE MARKS PER DISCUSSION									
HEIGHT DIMENSION .630-.641 TO ACHIEVE WEIGHT REQUIREMENT									
PROCUREMENT SPEC NAS125027									
NUT TO BE MADE FROM 1137 MATERIAL AS PREVIOUSLY SUPPLIED									

LOT NO.	0506980-2/0					All parts are shipped free of mercury contamination. All damages exceeding price are excluded. GREEN NYLON INSERT is a registered trademark of GREER STOP NUT	
QUANTITY	24,603						
AREA	0A3						
FREIGHT RECORD	WEIGHT	BOXES	PREPD	COLL	CARRIER	BILL OF LADING	FREIGHT CHARGE
	1,625	42		X	Fed ex freight		



Greer Stop Nut
481 McNally Drive
Nashville, TN 37211

Phone: 615-832-8375
Fax: 615-331-5070
E-mail: greer@spstech.com

CERTIFICATE OF CONFORMANCE

Date of Certification: July 10, 2012

Sold To: B/E AEROSPACE CONSUMABLES
8720 E 34TH ST N MANAGEMENT
WICHITA, KS
67226

Purchase Order No: 0FZB91

Customer Part No: MS21044N9 Rev. H

Item No: 004

Greer Part No: F52N7691-0918

Nomenclature: Nut, Hexagon, Self-Locking

Lot No/Serial No: 0506980-210

Qty. Manufactured: 27,224

Qty. Shipped: 26,603

Manufacturing Date: 8-30-12

Material: 1137

Material Specification: AMS 5024 H

Material Supplier: Nelsen Steel Company

Mil Heat No: 283796

Greer Steel Date: CJ527J

Material Marking: N/A

Nylon Conforms to ASTM D4066-94B, 96A, 98, 01A Group 1 Class 1

Procurement Specification: NASM25027 NEW

Thread Spec: AS-8879 Rev D

Surface Finish: Cadmium & Yellow Chromate

Surface Finish Specification: AMS-QQ-P-416 Type II Class 2 Rev. C

Axial Tensile Strength: 26,810 lbs.

Testing Exceeded: 26,810 lbs.

Specification: NASM25027 NEW

Sample Size: 10

Locking Torque Specification: NASM25027 NEW

Sample Size: 10

1st Cycle Max. Locking Requirement: 200.0 in. lbs.

15th Cycle Min. Breakaway Requirement: 24.0 in. lbs.

Tested Range of Samples:

1st Cycle Max. Locking: 50-70 in. lbs.

1st Cycle Min. Bkwy: 50-70 in. lbs.

7th Cycle Max. Locking: 45-60 in. lbs.

7th Cycle Min. Bkwy: 45-60 in. lbs.

15th Cycle Max. Locking: 40-60 in. lbs.

15th Cycle Min. Bkwy: 40-60 in. lbs.

Non-Destructive Testing: Magnetic Particle Inspection Spec: ASTM E1444-11

Acceptance Criteria: NASM25027 NEW

Sample Size: 20

Magnetic Particle Inspection in accordance with MT2000 Rev. 14 DTD 5-31-12 as modified by MT69811 Rev. 5 DTD 5-5-10

Hardness Requirement: HRC 28-32

Specification: GREER SPEC

Hardness:

HRC 28.0-30.0

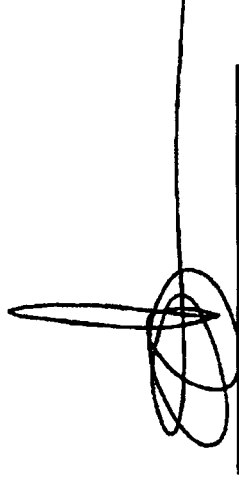
Sample Size: 10

Conforms Dimensionally: F52N7691-0918 Rev. 10, MS21044N9 Rev. H

Sample Size: 20

The products identified on this certificate have been manufactured, tested and inspected in accordance with, and unless noted above, conforms in all respects to the applicable drawings, specifications and/or standards. Complete reports of physical and chemical tests are on file for on-site examination. If no specified customer quality level is required, goods conform to seller's quality level. Reproduction except in full is strictly prohibited without written approval of Greer Shop Nut. All damages exceeding price are excluded. Mercury free clause: We certify that no possibility exists for mercury contamination to occur during manufacture, assembly or testing of parts on this contract. This document relates only to the items tested. Parts were manufactured in the United States of America. Sample plans are carried out to current standard/specification revision.

G and Green Nylon are Trademarks of Greer Shop Nut, Inc.



Fran Glover
Quality Assurance Coordinator



Nelsen Steel Company
9400 W. Belmont Ave.
Franklin Park, IL 60131-2898
Tel: (847) 671-9700 Fax: (847) 671-6833

SOLD TO
Greer Stop Nut Inc.
481Mc Nally Drive
Nashville, TN 37211
USA

RECEIVED
K.S. 5/29/12

PRODUCT CERTIFICATION

HEAT-LOT NUMBER 293796 WORK ORDER 074783
SUPPLIER Mittal Indiana Bar P SALES ORDER / RLS 091652 / 2
MELT SOURCE/NAFTA
Mittal IN/Yes
COUNTRY OF ORIGIN U.S.A.
CAST METHOD
Strand (Billet)

CUSTOMER P.O. 0011169299	CUSTOMER PART 0r23087	QUANTITY 11,810 LBS	COILS 3	LADING NO 00047750	SHIPMENT DATE 05/24/2012				
SPECIFICATION C08710H1137 .8710, Shape = Cold Drawn Hexagon, Grade = 1137 Mod, Length = 12' R, Grain Prac = Coarse Grain Practice, Silicon = .10 MAX, Quality Level = STD, Testing = Mag Tested, Mechanical Tests, Bundle max = 4000 lbs. Min. Red. Ratio 43:1									
CERTIFICATION REQUIREMENTS AMS 5024H Chem and Mech. Only									
Chemical									
C 0.39	Mn 1.39	P 0.02	S 0.11	Si 0.219	Cu 0.24	Ni 0.08	Mo 0.016	Cr 0.13	Te -----
Al 0.005	Cb 0.001	N 0.01	Sn 0.01	V 0.005	Ti 0.001				
Mechanical									
TEST	UNITS	HIGH	LOW	AVERAGE					
Tensile	PSI	125000	125000	125000					
Yield Strength	PSI	111000	111000	111000					
Elongation in 2"	%	10	10	10					
Reduction of Area	%	37	37	37					
Brinell Hardness	Brin Hds	231	231	231					
<p>We certify that the above material during its processing or while in our possession was not exposed to mercury or any other metal alloy that is liquid at ambient temperature, that no welding or weld repair was performed on said material, that no Class I or Class II ozone depleting chemicals (ODC's) were used in the manufacture of said material or in any of its components or packaging, and that the finished product described herein was manufactured by Nelsen Steel and Wire L.P. and/or its agents in the United States of America. We further certify that all material cold drawn by Nelsen Steel and Wire L.P. meets or exceeds the requirements of ASTM A108-07 (Level 1) and/or SAE J403 for carbon steels and/or SAE J404 for alloy steels and their referenced documents (including ASTM A29-11a and ASTM A576-90b, 2006) as a minimum. Also, all chemical and mechanical testing is performed by laboratories that have received or have applied for certification to ISO/IEC 17025-1999. Nelsen Steel's Quality Management System is registered to ISO 9001: 2008 via third party assessment. Manufactured in the United States of America.</p> <p style="text-align: center;">End of Certification</p>									

We certify that the above metallurgical report of chemical analysis and/or mechanical properties is a true and correct statement of the information relating to the product(s) listed above and conforms to the applicable specifications as indicated on your order. WE FURTHER CERTIFY that the material described herein was monitored and controlled during manufacture in accordance with the "Nelsen Steel Company Quality Assurance Manual" in its most recent revision prior to our issuing date shown.

Certification given and subscribed

by:

Kenneth A. Koepl, Quality Manager

TEST REPORT

ArcelorMittal USA, Inc.
INDIANA-HARBOR LONG CARBON
3300 DICKEY ROAD,
EAST CHICAGO, INDIANA 46312-1644

TEST REPORT FOR

NELSON STEEL CO

MELBURN STREET CO

9400 BELMONT AVE

9400 BELMONT AVE

FRANKLIN PARK IL

60131

FRANKLIN PARK IL, 60131

CMS (ZPG TW) SQ HOT ROLLED HEXAGONS IN COILS RESULFURIZED SAE 1137 /1137-51 06/
/14/04 / /SAE J403/

HBX 0.9375 IN X COIL

HEAT: 293796 C : 0.39 Mn: 1.39 P : .020 S : .11 Si: 0.22
Cu: .24 Ni: 0.08 Mo: .02 Cr: 0.13 Al: .005
Cb: <.008 V : .005 N : .010 Ti: .001 Sn: .01

PART NUMBER: H09375H1137

**ELECTRIC FURNACE STEELMAKING / CONTINUOUS CAST INTO BILLETS.
THIS MATERIAL HAS RECEIVED NO WELD REPAIR.**

Unless otherwise noted, the steel described herein was manufactured, inspected and tested in accordance with the requirements of the contract or purchase order and conforms to those specifications. This steel is compliant with European Union Directive 2002/95/EC. No mercury, sodium or diphenyl-sulfide were used in the production of this steel. This steel has been tested for regular welds. These analyses are reported in weight percent. Heat analyses and test results ending with an asterisk (*) were reported by a Accredited U.S.A. Inc., Indiana Harbor Steel and Iron Co. The "A" sign at the beginning of any line indicates an amendment to that line from a previously issued report for the same heat/lot. All tests were performed by Analytical Laboratories, Inc., Indiana Harbor Steel and Iron Co., in accordance with the following: steel analysis specified: Chemistry per ASTM E415 and E1681; Hardability per ASTM A265 and SAE 403; Microstructure per ASTM E2401 & E1146; Mechanical Properties per ASTM A370, E8 & E23; Hardness per ASTM E18-Type A, E18 & SAE A417; Chemicals per SAE 403; standard, unless otherwise noted. Measurement uncertainty was determined and is acceptable as requested. We hereby certify that the heat and/or test results in this report are applicable only to the items described herein, and are correct as contained in the records of the Company. This document shall not be reproduced except in full.

The management system provides the manufacturing processes of our product.

Jal Architectural USA Inc., Indiana Harbor
Lans Carbon, & H&W 1608-7089
certified, Certified No. 44-74 95
1-800-770-0000 certified, Certified No.
34234 and AIAA accredited in the field
at Chemical, Mechanical and
Environmental Through-Certification Inc.
111.09, 111.09 and 111.09

Ernest E. Heston
Manager - Quality & Technical